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PRICE-ANDERSON ACT AMENDMENTS OF 1987

HEARING

BEFORE THE

SUBCOMMITTEE ON
NUCLEAR REGULATION

OF THE

COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

FIRST SESSION

ON

S. 44 AND S. 843

BILLS AMENDING THE PRICE-ANDERSON ACT

APRIL 30, 1987

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PRICE-ANDERSON ACT AMENDMENTS OF 1987

THURSDAY, APRIL 30, 1987

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON NUCLEAR REGULATION,
Washington, DC.

The Subcommittee on Nuclear Regulation met, pursuant to notice, at 9:35 a.m., in room 406, Dirksen Senate Office Building, Hon. John B. Breaux [chairman of the subcommittee] presiding.

Present: Senators Breaux, Mitchell, Reid, Simpson, and Stafford.

OPENING STATEMENT OF HON. JOHN B. BREAUX, U.S. SENATOR FROM THE STATE OF LOUISIANA

Senator **BREAUX**. The subcommittee will come to order.

We meet today to consider miscellaneous proposals that would reauthorize and amend the so-called Price-Anderson Act. As the Members are well aware, this act was created in 1957 as section 170 of the Atomic Energy Act, and was intended to address the dilemma that the Federal Government found itself in as it struggled to launch the commercial nuclear power industry. The dilemma itself was fairly simple to state: given the unpredictable dangers of the new technology, how should the Federal Government fashion a policy that balanced a desire, first, to maximize the availability of private insurance; second, to provide timely and meaningful compensation to victims of a nuclear accident; and third, to ensure sufficient financial protections to an industry whose development was seen as both beneficial and necessary.

Amazingly enough, the Congress responded to this dilemma with a fairly straightforward response. The 1957 law, extended and revised in both 1965 and 1975, limits the ultimate liability of a utility that is licensed to operate a nuclear plant, and establishes a mechanism that was designed to make available the monetary resources necessary to compensate the public in the event of an accident in a timely manner. The law accomplishes these goals by requiring all nuclear utilities to carry the maximum amount of available private insurance, currently $160 million per reactor. If public damages from an accident exceed this primary layer of compensation, then each licensed reactor with more than 100 megawatts of capacity must contribute a one-time payment, a retrospective premium, of up to $5 million to cover additional claims. This retrospective premium makes up what is referred to as the secondary layer of the Price-Anderson damage compensation.

In return for receiving a limit on their potential liability payments, nuclear utilities are required to accept sole responsibility—

rather than reactor manufacturers, for example—for public damages caused by a nuclear plant accident. In addition, nuclear utilities must waive certain legal defenses if an accident is determined by the Nuclear Regulatory Commission to involve dangerous offsite radiation, an "Extraordinary Nuclear Occurrence." Thus victims of an ENO would not have to prove, in seeking compensation, that a utility was negligent in allowing the radiation release. They would only have to prove that an accident caused their damages, and establish the amount of those damages, in order to receive compensation.

With 108 reactors meeting the Act's threshold definition as of March 31, 1987, the nuclear power industry's liability limit for an accident stands at $700 million. In addition, Price-Anderson limits the liability of DOE contractors to $500 million, and allows the Energy Department to protect or indemnify its contractors from all damage claims up to that amount. Through this arrangement, therefore, the act currently ensures that victims of accidents caused by such contractors will receive compensation up to this $500 million ceiling. If public damages from a commercial reactor accident exceed the industry's $700 million liability limit, or if a DOE contractor's accident exceeds $500 million in damages, the act states that the Congress will take whatever additional action is necessary to protect the public.

It is no secret that efforts in the last Congress to reauthorize the Price-Anderson statute were filled with a certain amount of controversy. Nevertheless, as the Congress adjourned, it appeared that certain principles were generally agreed to by most of the participants in this debate. One generally accepted principle involved the Act's liability limits. No one, that this Member is aware of, questioned the fact that the Act's current limits for both utility reactors and DOE contractors are just too low.

Second, most participants agreed that the Act needed to identify a means of redressing damages that occur as a result of accidents involving the DOE Nuclear Waste Program.

Third, there was an agreement that the current statute of limitations had to be reformed.

Fourth, there was agreement that the liability scheme for university reactors, small commercial reactors, private nuclear material users, and other NRC-licensed nuclear activities should continue unchanged.

A number of other tentative agreements were reached by the leaders of the reauthorization effort in both the House and the Senate, as reflected in proposed floor vehicles; however, time ran out on the Congress, and today we must pick up the effort and attempt to iron out a final package before the August 1st expiration of the Act.

I am aware that a number of the participants in this debate are still unsatisfied with the tentative compromises that were reached late last year. This dissatisfaction is evidenced by the fact that two bills introduced this year are at variance with the proposed floor vehicle from last October.

Today's hearing is intended to explore those differences and determine the appropriate action to take in the succeeding days and weeks. This Member strongly believes, however, that the debate over the reauthorization should focus on the best and most efficient means to assure the American public that financial protection exists to provide compensation in the event of an accident that we all pray will never happen. And while the U.S. nuclear industry has not experienced an accident on the scale of Chernobyl, we must all recognize that statistically an accident triggering the Price-Anderson compensation system could happen. Recent events have served as an all too painful reminder that no matter how safe the technology, we have a long way to go in conquering the human factor which perhaps, unfortunately, plays such an important role in the safety of any endeavor of this magnitude.

The Senator from Maine? Any comments that you might have?

OPENING STATEMENT OF HON. GEORGE J. MITCHELL, U.S. SENATOR FROM THE STATE OF MAINE

Senator **Mitchell**. Well, Mr. Chairman, I have a markup in this room at 2:00 o'clock this afternoon, and from the list of witnesses you may still be going then. So I think that in order to help you finish this before I need this room at 2:00 o'clock for markup, I'll put my statement in the record and get on with the proceedings.

Senator **Breaux**. We'll appreciate that effort.

[Senator Mitchell's statement follows:]

Opening Statement of Hon. George J. Mitchell, U.S. Senator From the State of Maine

This country initiated commercial uses of nuclear power thirty years ago in the "Atoms for Peace" program. When Congress considered development of commercial nuclear power plants, many were concerned about the risk of handling such concentrated amounts of radioactivity. A major nuclear accident, they claimed, would likely bankrupt this fledging industry.

In response to these concerns, Congress enacted the Price-Anderson Act in 1957. This Act set a limit on liability for the nuclear industry of $500 million, a number one supporter claimed was big enough but not too big to scare anyone.

Every ten years since then Congress has grappled with the issue of how to assure full compensation to potential victims of a major nuclear accident without driving all nuclear manufacturers, architects and engineers, and utilities out of business.

Balancing the pressing need for victims of a nuclear accident to be fully compensated against the ability of the industry to pay is difficult. The equation is complex because so much is uncertain: How much would a nuclear accident cost? Who should be compensated? How much can the industry afford?

The uncertainties should not prevent us from trying to improve on the existing system. We do know that the existing limit on liability is too low to cover a major nuclear accident. We do know that a system for fully compensating victims of a nuclear accident should be put into law in advance of an accident, rather than responding in the immediate chaos of an accident.

Any such mechanism we agree to now will not be perfect. Should there be a major nuclear accident, it is likely that Congress will have to step in to tailor a compensation scheme for that particular accident. Congress does need to act now, however, to increase the limit on liability and the likelihood of swift and complete compensation.

Senator **Breaux**. The Senator from Nevada.

OPENING STATEMENT OF HON. HARRY REID, U.S. SENATOR FROM THE STATE OF NEVADA

Senator **Reid**. Mr. Chairman, I think that the Senator from Maine has set a good example. I will also ask that you make my statement a part of the record. The only thing I would do in addition thereto is welcome Jim Davenport of the Attorney General's Office of the State of Nevada to this hearing.

Senator **Breaux**. I appreciate the Senator's help and assistance.

[Senator Reid's statement follows:]

OPENING STATEMENT OF HON. HARRY REID, U.S. SENATOR FROM THE STATE OF NEVADA

Mr. Chairman, I want to thank you for holding this hearing and providing the opportunity for input regarding the reauthorization of the Price-Anderson Act. I want to welcome the various witnesses presenting testimony today, and extend a special welcome to Jim Davenport, Special Deputy Attorney General for the State of Nevada.

The Price-Anderson Act established the nation's basic nuclear insurance law. It requires the nuclear power industry to assume sole responsibility for damages to the public inflicted by nuclear plant accidents, in exchange for a limit on the industry's total liability payments.

There is basically universal agreement about the need to address the extension of the Price-Anderson Act, which expires on August 1. In fact, various House and Senate committees are working towards that goal. I am hopeful an acceptable position will be set forth and quickly adopted.

All in all, the nuclear industry has had a pretty good safety record since the first commercial nuclear power plant began operating in 1957. But, Three Mile Island and Chernobyl certainly altered the public's confidence in the saftey of nuclear power and raised serious questions about the liability issue. With current efforts toward developing a high-level nuclear waste repository, it's essential that the Price-Anderson system be reviewed and updated.

In closing, I look forward to hearing the statements of the witnesses and appreciate the opportunity to participate. Thank you.

Senator **Breaux**. I would like to acknowledge a statement from Senator Warner which will be made a part of the record at this point.

[Senator Warner's statement follows:]

OPENING STATEMENT OF HON. JOHN W. WARNER, U.S. SENATOR FROM THE STATE OF VIRGINIA

Thank you, Mr. Chairman. I welcome the opportunity for the Committee to have a full hearing on the reauthorization of the Price-Anderson Act.

The Price-Anderson liability system is important to the stability of the nuclear industry, to essential Federal facilities and to the American public.

Our goal should continue to be adequate liability coverage for nuclear utilities while guaranteeing the swift compensation of the public for losses should a nuclear accident occur.

Mr. Chairman, I believe this committee and the Energy and Natural Resources Committee arrived at a very equitable compromise on S. 1225, Price-Anderson reauthorization at the end of the 99th Congress.

The substitute amendment provided $6.6 billion in liability coverage for commercial reactors, up from the current limit of $700 million and it required the Department of Energy to indemnify contractors involved in nuclear activities to the same level of NRC licensees.

For coverage for DOE activities involved in the transportation, storage or disposal of nuclear wastes, this compromise extended Price-Anderson to ensure that the public would be compensated if an accident occurred in the transportation of nuclear waste or any other activities under the Nuclear Waste Policy Act.

Mr. Chairman, the work performed by DOE contractors must not be interrupted by the expiration of this act. Because that date is fast approaching and the fact that this committee approved a comprehensive bill last Congress, I trust any legislation this committee reports will closely mirror the substitute amendment to S. 1225.

Senator **Breaux**. With that, we would like to welcome our first panel of witnesses, the Honorable Lando Zech, Chairman of the Nuclear Regulatory Commission, accompanied by his colleagues and Commission members. We are pleased to have them all here.

Mr. Chairman, we are pleased to receive your testimony.

STATEMENT OF HON. LANDO W. ZECH, JR., CHAIRMAN, NUCLEAR REGULATORY COMMISSION, ACCOMPANIED BY THOMAS M. ROBERTS, COMMISSIONER; JAMES K. ASSELSTINE, COMMISSIONER; FRED BERNTHAL, COMMISSIONER; AND KENNETH M. CARR, COMMISSIONER

Mr. ZECH. Thank you very much, Mr. Chairman.

Mr. Chairman, my fellow Commissioners and I are pleased to appear before the subcommittee today to testify in its hearing on reauthorizing the Price-Anderson Act. We hope that an expression of our views today will assist the subcommittee in its consideration of legislative proposals supported by various Senators.

With your permission, Mr. Chairman, I'd like to submit my full statement for the record. I would like to note that we do have several corrections to page 8 of the full statement which I would like to make at the appropriate time.

Senator BREAUX. Well, without objection, so ordered. Just make sure that what you submit is the corrected copy.

Mr. ZECH. Yes, we'll indicate that, Mr. Chairman.

I would like to emphasize at the outset that the NRC's primary concern is public health and safety. Our efforts are directed to preventing accidents and ensuring the safe use of nuclear power. Our agency's mission is not primarily to evaluate financial arrangements such as those established by the Price-Anderson Act; nonetheless, while our overriding interest is that the plants be operated safely, we wish to work with you to assure that in the event of a significant release of radiation, the public would be promptly and adequately compensated for losses suffered.

As you know, when the Price-Anderson Act became law in 1957, it had two basic objectives: first, to ensure that adequate funds would be available to the public to satisfy liability claims in the event of a catastrophic nuclear accident, and second, to remove the deterrent to private sector participation in atomic energy presented by the threat of potentially enormous liability in the event of such an accident.

I believe that even with the passage of time and the successful history of operation of over 100 nuclear power plants in the United States, these two basic objectives are still important to maintaining the nuclear power option which has been established by the Congress for our country. While we continue to believe that the possibility of a catastrophic nuclear accident in the United States is very small, if there were to be such an accident, comprehensive, prompt and equitable settlement of public liability claims must be assured.

Consistent with this goal, any modification of this legislation must be undertaken cautiously lest it unwittingly upset the delicate balance of obligations between operators of nuclear facilities and the U.S. Government as representative of the people.

I believe it is important to keep in mind that the purpose of this legislation is to serve the American people by achieving two goals: preserving an energy option recognized by the Congress as important to the Nation, and assuring prompt payment of claims in the event of a nuclear accident. We should continually ask the question as we review the various provisions to extend this legislation, are these goals for the American people being served?

The Commission supports the extension of the Price-Anderson Act. The Commission's primary goals for financial protection of the public are to assure prompt and full payment for public losses. While there may be other acceptable approaches considered by the Congress, the Commission believes that the provisions of the measures under consideration would meet these primary goals. However, we prefer the retention of some large ceiling on initial liability for any nuclear incident, and we therefore do not favor the unlimited liability provision of S. 44.

As noted earlier, the financial side of nuclear power operation is not the Commission's primary expertise. Accordingly, we do not take a position on the precise dollar amount of retrospective premiums that should be required from reactor licensees. While past staff work has indicated that utilities will probably be able to pay an annual $10 million assessment, likely even $12 million, such a collection would be an extraordinary undertaking. Consideration of such an undertaking should be mindful that the contemplated collection could well take place in an atmosphere of impaired utility earnings resulting from the ramifications of the accident itself. The Commission has no special foresight as to the burden on the industry in such an atmosphere.

We note that under S. 843 and Amendment 3238, the Commission would be authorized to provide limited relief from the obligation to meet the full annual retrospective premium.

The Commission supports inclusion of precautionary evacuations under Price-Anderson coverage where such evacuations are compensable under State tort law and are ordered by authorized State or local officials.

The Commission has consistently supported a recommendation that the Congress extend the statute of limitations for filing a public liability claim arising from a nuclear accident from 20 years to 30 years and to support a like increase from a 20- to 30-year period in which those indemnified waive a right to plead any State statute of limitations. This extension is recommended in order to provide greater assurance that latent injuries caused by a nuclear accident are provided protection under the Price-Anderson system. But the inherent difficulties in proving that latent injuries were caused by the nuclear accident and not by some other factor or combination of factors appear to us to argue for some final cutoff to initiation of claims once a generous allowance has been made for accommodating the discovery of those injuries.

Our responses have been submitted to written questions propounded by the subcommittees by letter of April 10, 1987. We ask that they be included in the record as supplemental to this testimony. (See p. 78.)

Thank you, Mr. Chairman, for this opportunity to testify before the subcommittee.

Senator **Breaux**. Without objection, your inclusions will be made a part of the record.

Do any of the other Commissioners at this time want to make any comments, or just proceed to questions?

Mr. **Asselstine**. Mr. Chairman?

Senator **Breaux**. Mr. Asselstine.

Mr. **Asselstine**. Mr. Chairman, I have just a few comments. In the interests of time I would ask that my complete statement be included in the record.

Senator **Breaux**. Certainly. Without objection.

STATEMENT OF JAMES K. ASSELSTINE, COMMISSIONER, NUCLEAR REGULATORY COMMISSION

Mr. **Asselstine**. What I will try to do is just focus my comments on the three proposals that you have before you.

First, with regard to S. 843, let me say that I think that S. 843 contains a number of innovative features which are significant improvements over the current Price-Anderson Act. Those include a substantial increase in the amount of money automatically available from utilities to pay public liability claims; a third layer of protection provided by Federal indemnification for damages over the initial limit on liability; an effort to keep open the possibility of additional industry financial contributions beyond the limit on initial liability; the use of a study commission to examine alternative measures for compensating accident victims after the limit is reached; borrowing authority to increase the amount of funds available to pay for early public losses; a prohibition on the use of funds to pay punitive damages; exclusion of defense costs from Price-Anderson funds; inclusion of the costs of precautionary evacuations; the adoption of a "three years from discovery" standard in the statute of limitations; waiver of defenses provision; and finally, a provision to adjust the amount of the standard deferred premium to reflect changes in the Consumer Price Index.

These new features would substantially increase the amount of money available to pay public liability claims and, in my view, would help ensure that the victims of a nuclear accident are properly compensated.

Second, S. 843 goes a long way toward meeting the elements of the tests that I believe should be applied to revisions to the Price-Anderson Act. The bill would provide a fund of roughly $7 billion to be obtained from utilities owning and operating nuclear power plants, and the Federal Government would then agree to indemnify the utilities for damages resulting from an accident over and above that amount. In addition, the bill leaves open the option of obtaining additional funding to pay for damages above $7 billion from the utilities, from the Federal Government, or by assessing some other segment of the economy. This will help to assure that there will be full compensation to the victims of a nuclear accident.

The annual limit on the amount of deferred premiums will also avoid imposing a catastrophic financial burden on individual nuclear utilities. These provisions would also provide an assured and timely source of funds, at least for the first $7 billion. But the Commission's rather lengthy Indian Point proceeding makes clear that there is a group of accidents which, although unlikely, could result in damages far in excess of $10 billion. Under the bill, the Federal Government would indemnify licensees for liabilities above $7 billion, and where an accident results in damage above that amount, Congress must decide to fund any additional compensation.

This third layer of protection may not meet the goal of ensuring that the Federal Government does not bear the burden of paying the costs of a nuclear accident. Further, while Federal indemnification will help to ensure that eventually all claimants are paid, the necessity for Congressional consideration could delay the availability of the funding.

Dealing with the question of who pays in the aftermath of a catastrophic nuclear accident will not prove to be an easy task; indeed, one need look no further than the Congressional consideration a few years ago of proposals to fund the cleanup of the Three Mile Island Unit 2 plant to see the difficulties in trying to construct a funding scheme after an accident has occurred. The difficult arguments concerning Federal funding and funding by other utilities and their ratepayers who had no part in causing the TMI accident, as well as the resulting legislative impasse, I think are all too familiar to the members of this subcommittee.

Moreover, it is worth pointing out that the amount of money involved in the TMI-2 cleanup is far less than the additional funding which might be needed to pay public liability claims for the most severe accidents which are possible.

If we should learn one lesson from the TMI-2 cleanup experience, I think it is that we should endeavor to establish in advance a framework for compensating the victims of a nuclear accident that will provide an assured source of full compensation for the public for all possible accident situations. The provision in S. 843 which sets up a Presidential commission to study this issue is a step in the right direction toward resolving this problem.

As to S. 44, S. 44 provides for an annual limitation on liability with no limit on aggregate liability for each nuclear incident. This is, in effect, the Commission's 1983 proposal, which I support, and would accomplish each of the policy goals of the Price-Anderson Act, which I believe should be the test for those proposals.

It would also provide the useful addition of a somewhat higher deferred premium amount, coupled with an increase in the annual deferred premium to account for inflation. However, the bill also provides that the Commission is to adjust the deferred premiums due from individual utilities based upon the utilities' safety performance. The top 10 percent, as identified by INPO or some other body of experts, are to receive a discount of 20 percent and the bottom 10 percent are to pay 20 percent more of the amount of the deferred premium. Identifying the differences in individual utility performance, recognizing the best performers, focusing needed attention on the poor performers, and providing incentives for improved safety performance are laudable goals, and I support initiatives to accomplish them. However, I am not sure that the Price-Anderson system is the appropriate place to address these issues. The purpose of the system is to ensure a source of funds to compensate the public in the event of a nuclear accident. It is, in effect, a no-fault insurance scheme which spreads the cost of an accident uniformly over the entire nuclear industry. To inject a new element into the process, safety performance, will likely complicate the process of assessing and collecting the deferred premiums. It could engender lengthy disputes over placement on the list—the bill, after all, provides for an opportunity for a hearing on this issue—which could in turn make it more difficult to ensure a timely source of adequate funding to compensate the public. I would therefore recommend that this feature of S. 44 be eliminated.

As to Amendment 3238, the Commission has also been asked to comment on Amendment 3238 which was proposed as an amendment to S. 1225 in the last Congress. That proposal also contains some improvements over the present Price-Anderson Act, such as an increase in the amount available for compensation; borrowing authority to increase the amount of funds available to pay early public losses; a prohibition on the use of funds to pay punitive damages, and inclusion of the costs of precautionary evacuations. However, the proposal contains an absolute limit on the aggregate liability of the nuclear industry. Such an absolute limit, in my view, is not the best way to accomplish the four goals that I believe should be accomplished by the Price-Anderson Act. Retaining the liability limit would limit the financial impact of a nuclear accident on the utilities owning and operating the nuclear plants, but it would also provide insufficient funds to pay all the valid claims of the victims of some nuclear accidents. While the roughly $6.5 billion available under the amendment is much better than the roughly $700 million now available under the act, it may not be sufficient to cover the costs of all possible nuclear accidents. It would, thus, not automatically provide funds sufficient to compensate fully all victims. Congressional action would be necessary to provide additional funding. This has the drawbacks that I discussed in relationship to S. 843, with one additional problem. Amendment 3238 makes it difficult—and perhaps even impossible—to obtain further funding from the nuclear industry. Thus, in addition, it does not meet the test of ensuring that the Federal Government will not have to bear the burden of compensating the victims of an accident.

A further concern is that, with a fixed liability limit, some judgment would have to be made on how much of the available funds should be set aside to pay future claims for latent injuries when those injuries become apparent. Apportioning of the available funds has the potential to short-change either the victims with immediate injuries or those with latent injuries, or both. As the Commission responded in its 1983 report to the Congress, these disadvantages argue against retaining the absolute limit on liability and in favor of the annual liability approach.

Adoption of either S. 44 or S. 843 would, in my view, significantly advance the public policy goals of the Price-Anderson Act. Each is an innovative method of ensuring that there will be full compensation to the public in the event of a nuclear accident, and I think that both bills deserve careful consideration. However, since S. 44 is closest to the Commission's 1983 recommendation, my personal preference would be for that approach.

Thank you.

Senator **Breaux**. Thank you very much, Mr. Asselstine, Mr. Chairman, and members of the Commission for being here.

Let me ask you, Admiral Zech. You correctly point out that NRC's primary mission is health and safety for the public and not to evaluate financial arrangements, but the thoughts of the Commission on this are indeed very important.

Your testimony states that you favor extension of Price-Anderson, that you favor something that would provide greater liability for reactor licensees than is provided by current law, but you also say that you want to retain the concept that any such payment because of liability would have some kind of cap or be restricted or have a cutoff. You indicated in your testimony that the present position of the Commission is what you described as a "preference for the retention of a large ceiling on initial liability for any incident, and therefore would not favor the unlimited liability provisions of S. 44," introduced by our colleague, Senator Moynihan.

Back in 1983, in one of the Commission's reports, you recommended to the Congress that we substitute an annual limitation on liability that would continue to be collected until all public liability claims from an accident are paid. That's sort of what's proposed in S. 44, and today you're telling us you don't support S. 44. It seems like there's been a change if you look at the recommendation from the Commission in 1983; recommended high initial liability and that they continue to make those payments until everything is paid for. Today you say you don't support that. What's the change? Why?

Mr. ZECH. Mr. Chairman, first of all I should point out that I was not on the Commission in 1983, nor was Commissioner Carr, so we do have a different Commission.

My personal evaluation of this Price-Anderson Act when I did come on the Commission in 1984 led me to believe that the Price-Anderson Act was a very important piece of legislation. It does require the utilities as a whole to shoulder the responsibility for an accident that may involve only one of the members. I think that's responsible legislation. In so doing, it creates a large pool of money in case of a catastrophic accident. And again, I think it's important to focus on—at least from my standpoint; our primary responsibility is for public health and safety, and therefore in such an accident we would, certainly I would, favor prompt and adequate compensation to those who would be injured.

Senator BREAUX. It's not a big question, what I'm saying is that in 1983 the Commission said, we want a lot of payment up front but we're going to have a cap. Now the Commission is telling the committee that it's not favoring an unlimited liability.

Mr. ZECH. Yes, sir. I'm just trying to tell you as briefly as I can, Mr. Chairman, my own rationale for coming to this conclusion.

So although the requirements, in my view, to require each plant to pay for the accident of one is justified, it seems to me that it is probably not fair or probably not justified to have an open-ended bill that would require all those who did not have the accident to continue payments indefinitely. And it seems to me that there's a balance that you're striking here between sufficient funds, which those that we're talking about in my judgment would provide—if they do provide sufficient funds, especially with the third layer which would require Congressional support and Presidential support if the rather sizable sum was not enough—it seems to me that it is unjust, in a sense, to require an open-ended requirement on all the utilities when, I believe, you do have sufficient funds to take care of an accident.

So my personal feeling is that a cap—some kind of liability—after a sizable amount is agreed upon is the fairest way to deal with this.

Senator **Breaux**. What you're saying, simply stated, is that it's a trade-off. If you're going to give quick, prompt payment up front without liability, there's going to be a cap, and that's the tradeoff.

Mr. **Zech**. Exactly. In order to get that sizeable fund and require every single utility to commit to this program, it seems to me—in order to get that sizable payment and that tradeoff—it would be reasonable not to require an unlimited program, especially for those who were not involved in the accident.

Senator **Breaux**. Do the other Commissioners, particularly those who were there in 1983, have any comments on that?

Mr. **Bernthal**. Well, Mr. Chairman, I would make a very brief comment. I note that a number of the bills that have now received considerable discussion in both houses of the Congress have indeed dropped what was perceived to be this unlimited liability provision that we're discussing here, which remains in Senator Moynihan's proposed bill.

I would just say that I was one of those who initially supported—in my first six months, I guess, on the Commission—the staff submittal on this question. I have to say that anybody who watched the spectacle in this country and elsewhere that followed the Bhopal event certainly had to do some second thinking about the wisdom of creating an unlimited annual billion-dollar pool for compensation. That, in my view, would literally create an entirely new industry that relied on that pool forever and ever, and I came to the view partly because of the Bhopal event, that this was simply not wise. We've learned a good deal, I think, in the last few years about major catastrophes and how they are likely not only to impact individuals involved, but the court system in this country.

And I would also point out, and did at the time, that this so-called free market version of unlimited liability would in reality be limited by the—the "free market" would be limited with finality by the assets of the particular utility involved or utilities involved. There are some who have advocated, for example, that a given utility should be completely liable. That's a rather small pot of money, as I understand it, if you look at the recoverable assets of any given utility in this country. In fact, in 1978 the Supreme Court recognized expert testimony at that time—and I'm not correcting for inflation—that seemed to indicate that one of the largest utilities, Duke Power, even at that time I suspect one of the most sound utilities, under a bankruptcy proceeding would only be able to offer up something like $200 million in the end as compensation to plaintiffs.

Now, I realize that's somewhat a separate issue from whether the rest of the industry should then pitch in forever after to the tune of $1 billion or whatever it might be per year, but generally speaking I have felt that, based on events, particularly the Bhopal event and the way the legal system handled that event, that that was simply something that was very unwise but nevertheless, that a somewhat larger compensation level in total than had been recommended in early versions of the Price-Anderson bill was appropriate. I think I said at the time last year, perhaps as much as $5 billion, and that's about the neighborhood we're in right now.

So the present versions of the bill meet a number of the objections that I had remaining last year at this time; and in fact, I submitted for the committee's consideration in testimony last year a more lengthy statement which I would be happy to provide for the record again this year for consideration.

Senator **Breaux**. Thank you.

Senator Simpson?

OPENING STATEMENT OF HON. ALAN K. SIMPSON, U.S. SENATOR FROM THE STATE OF WYOMING

Senator **Simpson**. Thank you, Mr. Chairman.

Welcome to the subcommittee. I've seen you people here before in my travels. It's always good to visit with you.

Mr. Chairman, I appreciate your scheduling this to consider these various proposals for reauthorization. We have an excellent panel of witnesses, and I look forward to that. As we discovered in the last Congress—and I realize I'm using my question time here—this issue is really no different from all the others we deal with in this committee and this subcommittee. It's contentious and polarized and sometimes emotional, but I trust with your good stewardship of this committee, Mr. Chairman, which you are certainly expressing, we can reach a bipartisan consensus on how best to succeed, and I pledge again to that effort.

We accomplished a great deal in the last session, came very close to having a bill ready. The leadership of the Energy and Environment Committees worked long and hard with staff to resolve the differences, and in October we reached a consensus on an approach that was both reasonable, I think, and responsible. We have new Members and new responsibilities in this Congress, but the issues remain basically the same. On top of that, we have a number of other issues in areas to address as well—waste disposal, emergency planning, reform and restructure of the NRC—so, to the extent possible, I think it would save us all some valuable time if we were able to take advantage of the progress we did have last year, and might move quickly to have a bill ready for action on the Senate floor. We obviously have not yet resolved our differences procedurally or substantively, with the Energy Committee, but I trust we will be able to accomplish that when the time comes, and I will support you, Mr. Chairman, in your efforts to address that issue in a reasonable and timely manner.

I do have a couple of questions of the Chairman of the Commission, perhaps others might want to reflect on them, on this issue of how long the Price-Anderson Act should be extended for NRC licensees. Would you please give me your thoughts on the factors that we should consider? And specifically comment on the range represented in the bills that are before us, 10 years, 15 years, and 20 years.

Mr. **Zech**. Yes, Senator Simpson. The bills, as you point out, do have different expiration dates. I believe 3238 expires in 2007, which would mean a 20-year extension, and S. 843 expires in 1997, which would be 10 years. S. 44, I believe, is in 2002, which is 15 years.

I think frankly that 10 years, since it has been considered the last time here in Congress—what I can tell from my colleagues and the members of the staff who are more familiar with the bill, 10 years has gone by rather quickly. My personal preference would be to extend it to 20 years. I think perhaps beyond 10 would be good; 10 is good, but I just think 15 or 20 is perhaps a little better. It's a personal preference. I don't feel it's mandatory, but that would be my inclination.

Senator Simpson. Let me ask you, based upon the operating licenses that you've issued for currently operating reactors, would there be a sufficient number of reactors operating 20 years from now, in the year 2007, to generate a substantial amount of funds through the retrospective assessment? And if so, would it make sense to extend the act for a longer period of time, or are there other factors that would argue in favor of a shorter extension?

Mr. Zech. My understanding is that there would be a sufficient number of reactors in 2007 to provide a sizeable pool. I could provide more specifics on that, Senator, for the record, if you'd like.

Senator Simpson. If you would, please.

Mr. Zech. Yes, sir, I'll do that.

[The information requested follows:]

The table below shows the projected range of number of plants based on two different assumptions of the date for expiration of the operating license.

Year	No. of Operating plants [1]	Year	No. of Operating plants [1]
1987	109	2008	120–86
1988	114	2009	116–82
1989	116	2010	113–72
1990	117	2011	111–70
1991	118	2012	105–65
1992	119	2013	90–56
1993	120	2014	75–51
1994	120	2015	73–51
1995	122	2016	66–49
1996	122	2017	62–48
1997	[2] 122–121	2018	59–47
1998	122–121	2018	59–47
1999	124–123	2020	55–46
2000	123–122	2021	53–45
2001	123–122	2022	47–44
2002	122–122	2033	43–40
2003	122–122	2024	35–33
2004	122–119	2025	28–28
2005	122–118	2026	21–21
2006	122–113	2027	15–15
2007	120–103		

[1] General Assumptions/Notes:

1. No reactors beyond those operating or under construction will be built.
2. The 40-year maximum term operating license will not be renewed.
3. Data is for end of calendar year.
4. For plants where construction has been suspended, a best guess estimate was used.

[2] The numbers beginning in 1997 represent varying assumptions on the operating license expiration date. The higher numbers assume that operating licenses will be extended for 40 years after receipt of the operating license. The lower numbers assume operating licenses will expire as currently specified in the license, which, in some cases, means 40 years after the construction permit was issued. It is noted that a number of these plants have requests pending for an extension.

Senator SIMPSON. In the event that we adopt a system that reintroduces Federal indemnity for NRC licensees, I wonder if you could tell me how that system would work. Where would the money come from? What are the procedures for paying claims that exceed the "limit" on liability? Does the money come from the judgment appropriation, or does the Congress ever get involved in reviewing the funds paid out?

Mr. ZECH. These are litigative claims, Senator? Is that the question?

Senator SIMPSON. Yes, judgments.

Mr. ZECH. Yes, sir. The litigative claims, as I recall in some of the bills, that is not addressed. I think in S. 843 it says that they cannot pay those funds out of the Price-Anderson funds. Again, my personal view—because this is not my expertise nor that of my colleagues, I don't believe—but it seems to me that those funds are going to be paid somewhere along the line. My personal view is that they are going to be paid, and if I had a choice, it seems that they might come out of the second tier perhaps better than the first tier. I would not exclude them from the first tier, although I am informed by those who have looked into this matter that there is a possibility that the insurance company may decrease the total amount of insurance available if it comes out of the first tier. I think that's a consideration that should be taken.

Again, I don't have strong views on this particular matter, but I think it's realistic to know that there would be costs that have to be paid.

Senator SIMPSON. Well, do you think Congress should get involved in reviewing the funds that get paid out?

Mr. ZECH. My view is that they should not come out of the third tier. That's where the Congress would be involved. It seems to me they should come out of either the first or the second. That's my personal feeling.

Senator SIMPSON. I'll submit the balance of my questions. Do you have something further?

Mr. ZECH. No, I'm just not sure I've responded to the question you've asked me, Senator.

I hope I have. I've tried to.

Senator SIMPSON. You have tried. Yes, you've tried.

Senator BREAUX. Senator Mitchell.

Senator MITCHELL. Thank you very much, Mr. Chairman.

On the question of the appropriateness of the $10 million annual assessment, I gathered, Mr. Chairman, you in your response to Senator Breaux's question opposed that. Your written statement said that you thought such a collection would be an extraordinary undertaking.

May I ask each of the Commission members to tell me whether you think $10 million per year per reactor to provide full compensation for persons who may be damaged as a result of a nuclear accident is an excessive amount, an unreasonable amount? What is your view on it, each member of the Commission, on the $10 million figure?

Mr. ZECH. My view, according to the information that I've been provided, Senator, is that it would not be considered excessive. It would be considered a reasonable amount to make. Again, I think the question is probably better addressed to the utilities themselves. Ten million dollars seems like a lot of money to me, but our staff review has indicated that that amount could and should be accommodated by all the utilities.

Senator MITCHELL. Could be and should be?

Mr. ZECH. Yes, sir. That's my view, and I think that's what the staff has come up with. It seems to me that they can and should be able to pay that amount in a responsible manner. That's why I have supported the $10 million to $12 million figure.

Senator MITCHELL. Does any member of the Commission have a counter view?

Mr. BERNTHAL. Well, I think I want to make clear that I don't believe anyone at this table, to my knowledge at least, takes the position that $10 million in a given year is an excessive burden on the utilities involved here. I sense that you're driving at another issue, perhaps—maybe I'm wrong, Senator—and that is that therefore it follows that that annual amount forever is not an excessive burden, and that's where I have the objection. It's not the $10 million assessment in a given year; it's the principle that on the order of $1 billion should be laid out there and put up for grabs forever. I simply don't believe that's wise, and that does not really touch on the question of $10 million in a given year.

Senator MITCHELL. That, of course, is the second part of the question. For how long, Commissioner Bernthal, would you propose that the $10 million be paid? You would limit it by a specific amount?

Mr. BERNTHAL. Well, yes. I have supported the concept that there should be a dollar limitation. I have not taken a very firm position on exactly what that dollar limitation should be. I would say it's in the ball park now of what I had in mind when I suggested a year ago that it perhaps could be somewhat higher than it was at that time.

Senator MITCHELL. I'll get to you in just a minute, Commissioner Asselstine, but I think you have to put this in perspective. The entire American legal system, the entire Anglo-Saxon legal system is premised on the belief that persons should be held accountable for their actions. This is an extraordinary exception to the customs and standards and laws by which this society has operated for 200 years. And what we do is, we say that if persons are injured, the person who caused the injury will not be held responsible for that injury if it exceeds a certain amount. The amount is necessarily arbitrary. If you go back and read the legislative history and the committee debates at the time that Price-Anderson was first adopted, it is very clear that this is a purely arbitrary figure and that no one has any real notion—no one had, and to this day we do have a little better notion, but no firm conviction—as to what it may cost.

It seems to me that those who advocate this truly extraordinary exception from the customary, traditional, historic method of doing business in this country have a fairly heavy burden to carry. And if you think that $10 million a year is a reasonable and affordable charge, what is it that dictates you to conclude that therefore it should be limited to X number of years, 4 years, 5 years, 6 years, 10 years, 20 years? If it's a reasonable charge—and remember, you're carrying the burden of justifying an exception that exists in virtually no other areas of American economic activity.

Mr. **Zech**. If I may try to respond, Senator. Again, this is not our area of expertise, and I certainly understand and agree with your review of the fairness. Those who commit a crime should pay the punishment.

Senator **Mitchell**. Or not crimes, who commit an act of negligence by which another person is injured.

Mr. **Zech**. Yes. Right. But my view is this. I think it's a reasonable approach that the Congress is taking in this regard because I'm not so sure that if a company, a utility, did have a catastrophic accident, and you only tried to get the funds from that utility, that you would be able to get prompt and adequate funds for the American public that was injured. And if you can't get them—if they don't have enough money, they run out of funds—something has to happen, and in this particular instance I think it's a responsible thing for the Congress to do to levy the additional responsibility to all the other utilities to compensate for the higher funds that would be necessary. And that's why I support this—this rather exception, perhaps—to your——

Senator **Mitchell**. Well, the question is really defining the additional responsibility. My time is up. I want you all to have a chance to respond, and I'll have you do it in the next round.

I just make this point, that you're representing an Administration which tells us in other areas that the free market is the answer to our economic problems in this country, and that the Government is the problem; and if we'll just let the free market operate, our economic and social problems will be solved. And yet here, it's directly to the contrary. What you're saying is that the free market has a built-in limitation that will render this activity unable to proceed, which means that it is not an economic activity in a free market because it requires a major substantial Government assistance, which is directly contrary to the economic principles which this Administration represents and presents to us in the Congress on a regular basis.

I can see how it happens because we all are inconsistent; I, myself, am inconsistent—but it is so inconsistent with what we are told over and over again about the free market and how it will solve our problems, and if we could just get the Government out of the way and get the Government off people's backs and get the Government out of it, the principles of free enterprise will solve our problem. Here's just the opposite, exactly the opposite, and it's the Administration defending more extensive Government intervention and limitation in that manner.

I'm sorry I've gone on beyond my time. I will give all of you a chance to respond on my next round, so you can think of the answers to this in the meantime while you are answering the other questions.

Senator **Breaux**. That was a good point.

Senator Reid?

Senator **Reid**. Thank you very much, Mr. Chairman.

Last year there was a compromise that was attempted to be worked out. Senator Simpson, among others, cosponsored this amendment. One of the areas with which I am concerned dealt with compensation for accidents involving spent fuel and other wastes from commercial nuclear plants.

I see in the legislation that's being proposed this year that there is comparable language that deals with waiver of defenses as it applies to accidents involving the storage, transportation and disposal of high-level radioactive waste and other nuclear materials.

I'd like the comment of the Commission as to whether the Commission feels this should be part of any legislation.

Mr. ZECH. Senator, if I may, that in my understanding is primarily the Department of Energy's responsibility. I'd like to call on, perhaps, a member of my staff to respond to make sure that I'm correct in that regard, Mr. Ira Dinitz from the Nuclear Regulatory Commission staff.

Mr. DINITZ. Mr. Reid, I think the Commission is on record as supporting the waiver of defenses provision relating to the waste activities you've referred to.

Senator REID. So any provision like that in the bill, the Commission would not oppose?

Mr. DINITZ. That's correct, but I would also reiterate what the Chairman said, and I think DOE certainly has a strong position on that, as well.

Senator REID. Thank you.

Rather than waiting for the next round, I would appreciate if you would respond to Senator Mitchell's question as to how consistent we are in what we're trying to do as to limiting liability.

Mr. ZECH. Well, let me just say this. Again, this agency is not an expert in the economic matters of our country. We are focusing on public health and safety. I'd like to point out, too, that we are an independent agency. We listen, of course, to the Administration and to the Congress and to members of the public and to a great number of people, but we do make independent judgments. When we're asked in a forum like this to essentially step out of our area of expertise, we're trying to contribute to the decision that Congress is making. We're giving you as honest an appraisal as we can, and I feel that in this very exceptional instance that we're discussing there has been introduced in a number of these bills a very responsible effort to accommodate a unique and catastrophic situation. My view, too, is that in such a situation, even if it were something other than nuclear—flooding, fire, a catastrophic situation involving a part of our country—that the Congress and the President would feel, perhaps, an obligation to step in. But I do think the bills provide a very generous and substantial fund so that that situation, of the President having to step in, would be very remote. That's my view.

Senator REID. I'd like to hear from the other Commissioners. I see at least two with hands up. Mr. Bernthal?

Mr. BERNTHAL. Senator Reid, I want to respond to a couple of points that were raised earlier by Senator Mitchell, and I——

Senator REID. Let me just interrupt and say this, and I am anxious to hear your answer.

The only thing, Mr. Zech, that I would say is that I'm not too sure that this shouldn't be part of your expertise; if not now, at some subsequent time, because you're going to be mandated to understand these areas quite well. You've said a number of times in giving us a cautionary note, that this is not your area of expertise. If it's not now, I'm sure it should be in the future.

Mr. Bernthal.

Mr. **Bernthal**. Yes, I want to comment on a couple of points, and I do so with some hesitation because somewhere in my dim recollection is that Senator Mitchell once held the title of judge, and I am not trained in the law, but let me make a comment or two, in any case.

Senator **Mitchell**. Being a lawyer doesn't qualify you too much, Mr. Bernthal, so don't base your remarks on that basis.

Mr. **Bernthal**. The one point is that of whether this is an extraordinary departure from any precedent in law in this country, and I would suggest that it is not entirely without precedent, perhaps even as far back as the 19th century where I understand there was a special provision made under the old—I believe, and correct me if I'm wrong—under the old Merchant Marine Act or something like that that dealt in a special way with liability. There certainly is a limitation of liability under the Warsaw Convention for airline liabilities for losses to passengers in the case of accidents.

More recently, though, and more to the point, I think, is the Superfund provision which has recently adopted the concept of collective, widespread, industry-widespread liability for events that may, in fact, be attributable to one particular entity or other within the industry. And even within the drug industry—not just the chemical industry, but in the area of drugs and other areas as well—it now appears that that concept of rapid compensation and collective indemnification is being extended. So I would suggest that far from being an anomaly, Price-Anderson as originally conceived was a piece of landmark legislation, that the idea of Price-Anderson and collective indemnification and compensation, rapid compensation by an administrative provision outside the normal channels of tort law in this country, is an idea whose time has come. And I think that's reflected, in fact, in a number of the steps that Congress has taken in other areas within the past year or two.

I would also comment briefly on the free market question. As I mentioned earlier, in a true free market the single utility would be entirely responsible, entirely liable for any consequences of an accident. I think we all understand that under that provision, there surely would not be anything in the neighborhood of $5 billion or $6 billion recoverable to any claimant under any very large accident scenario in this country because our bankruptcy laws simply wouldn't permit, in the end, that kind of recovery as I understand it. And I mentioned earlier that in 1978, at least, it appeared that experts felt about $200 million would accrue to the plaintiffs from a very large utility, Duke Power, at that time at least, in the case of an accident.

Well, the question is then, should any industry be allowed to proceed if such collective indemnification is required? That was a judgment that the Congress made. Way back in the early days of this industry the Congress decided that this country did want to promote nuclear power, and that since there are no statistics for this kind of event, the kind of statistics that the insurance industry would normally have to rely on, that an appropriate way to do that insurance or indemnification was the Price-Anderson provision that they enacted into law.

So two points, then, in summary. I don't think it's such a radical departure from other things that we've done over the years. And secondly, we simply don't have a free market of statistics in this area right now upon which to act in the normal way.

Senator **Breaux**. The time of the gentleman has expired.

Senator **Reid**. Mr. Chairman, if Mr. Asselstine can answer his question.

Senator **Breaux**. Okay. We're going to have another round. I just have two quick questions.

Admiral, apparently you differentiate between the liability in S. 843 and S. 44 in your statement. DOE's witnesses that are going to testify following this panel seem to read S. 843 as creating potentially unlimited liability, similar to the Moynihan bill. They say that courts could interpret S. 843 to permit them to "continue to award damages after the initial limitation on liability has been exceeded, which could prevent Congress from determining whether a streamlined compensation system should be established for damages in excess of the initial minute." Testimony of the ANEC and the EEI also talk about S. 843 as being an unlimited liability version of the legislation.

Apparently your statement indicates you don't believe S. 843 has that unlimited liability problem. Can you tell us why?

Mr. **Zech**. I will try to respond, Senator.

It's my understanding that S. 843 does allow the courts to determine the claims. If that is the case and that is the intent of S. 843, then it does provide in a sense, I believe, unlimited liability for claims.

Now, I'm not sure how that would work out, but my feeling is that the layer three, which S. 843, I believe does support—in other words, that the President would support a study commission to report to Congress a method for collecting more funds—leads me to believe that perhaps S. 843 does indicate, and could indicate, depending on what the study commission would recommend, that there would be an involvement in that third layer that would perhaps result in less than what one would consider unlimited liability. I am not completely clear in my own mind what that determination would be, but if it is clear that that study commission would have that authority, then it would not be unlimited liability. On the other hand, my personal feeling is that if the courts could determine—and continue to determine—liability if the President's commission would not clarify that issue, then it could indeed be considered unlimited liability. That's my personal feeling.

Senator **Breaux**. In either case, you'd prefer it to be tightened up to provide some type of a cap or outside limitation?

Mr. **Zech**. I would indeed, and that's why in that provision I certainly believe that Amendment 3238 is the preferable and the clearer way to go.

Senator **Breaux**. S. 44, the Moynihan bill, contains a provision that requires the NRC to promulgate a method for establishing the annual premiums within statutorily prescribed minimums and maximums, and they instruct NRC to do it based on performance standards, safety records, history of operational safety of the licensed facility.

Could you give us the views of the NRC on this particular issue? Is there a mechanism that would allow the NRC to say, in essence, what the premiums should be for a particular facility based on a safety record that you have compiled?

Mr. **Zech**. My feeling, Senator, is that that would be very difficult administratively. In a time of catastrophe I'm sure there would be some debate, and it would be a difficult decision to make as to which plant falls into exactly that category and which does not. I can understand Senator Moynihan's interest in trying to give some kind of an advantage to those companies which are performing well and to lean on those companies harder that are not performing well. I understand what his incentive is there, but from an administrative standpoint I think it would be extremely difficult, and that's why I do not favor that provision.

Senator **Breaux**. I realize it sort of puts you into the business of a public service commission, setting rates on premiums for insurance, but how do we accomplish that? If we assume that we want to encourage companies to be safe and get a better break on their insurance premiums by doing that, do you have any suggestions about how Congress could craft that type of provision?

Mr. **Zech**. If I may, I have to call in one of my staff members.

Mr. Dinitz, perhaps you might help me out on that one, sir?

Mr. **Dinitz**. Mr. Chairman, it's our understanding—and I think that the insurance pools when they testify a bit later could also reiterate that they do consider performance factors, other factors such as operations of a particular utility, in the assessment of the premiums that they charge for the primary insurance layer of $160 million.

Senator **Breaux**. We'll pursue that with them, then.

Senator Simpson, do you have any questions?

Senator **Simpson**. Just reflecting on the issue that Senator Mitchell brought up with regard to the free market. I know that stimulates comments from time to time. But if we really believe in a free market, let's just let Price-Anderson expire. Isn't that where we want to be? That's a true free market. That means that, under Senator Moynihan's bill, that you don't hit a utility $10 million a year in perpetuity that has never been involved in an accident, which is why I think that that's a mistake. At least Senator Stafford has a limited utility liability of $63 million and then 5 years, but then unlimited Federal indemnity for claims above the utility limit.

A free market system in this arena leaves us with a Bhopal situation. That's all we're going to get in this. What we really have in Price-Anderson is so unique because it's workmen's comp at the nuclear level. I don't see how you can just continue to soak the utilities that have never been involved, and everyone knows that the minute we got to an ENO, an extraordinary nuclear occurrence, that the Congress would respond very swiftly. We really would. Six or seven billion, if it got up into those figures. That's why I think that if we had a limit so that the utilities know where they're going to go, and there are 108 of them on stream and another 15 coming, and they know where they're going to, and then know that after you get to the catastrophic one, that the Congress by law would be required to sit down and take a look at what it is that's necessary for this initial indemnification, and that was the purpose of the amendment that I proposed last year.

I don't see Senator Mitchell as ever being punitive on this industry, and he doesn't do that in anything that he does. But I think the argument of "free market" just to kind of slip a jab at the President is not what we're up to here. We've got to find out what we're going to do with an industry that's here. The frustrating part of it all, whether I am chairman or ranking member, is the fact that we've got an industry; it's on board, and your sole job is to assure the public health and safety. There's nothing else in your mission. You're not economists; you're not insurers, and I think that we've got to do work, and that means that we again are going to have to look at it realistically. How much can these people pay if it goes down the tubes? If we get hit by an ENO, then we know what Congress is going to do; they're going to throw open the Treasury doors. Lord, when Mount St. Helens erupted, we just stood on the floor one day and passed a billion bucks, and that was a natural phenomenon. I think it was $800 million.

Well, anyway, those are some thoughts. We have a tough issue. We don't want to go to Bhopal; that was an embarrassment to me as a lawyer, to watch them just suddenly fill the airlanes to get to India with slips of paper in their hand, and that was disgusting. We don't need that; that's why Congress should be here. But to just lay it on them every year in perpetuity regardless of their sense of fault is not what it's all about, in my mind.

I guess I'll save the balance of my questions. I just wanted to comment on that aspect.

Senator **Breaux**. Thank you, Senator Simpson.

Senator **Mitchell**. Senator, I want to make clear that I don't favor just going to the free market. As you know, last year under your leadership we fashioned a reasonable compromise. I commend you for that; I worked closely with you on that, and I think it's obvious we're going to have to do the same thing.

Senator **Simpson**. You're speaking of Superfund.

Senator **Mitchell**. Yes, we did that, too. But as you pointed out in your earlier remarks, it didn't become law, but we worked on it. It's obvious we are going to have to do something along those lines.

Senator **Simpson**. You were always extraordinarily cooperative in that area, without question.

Senator **Reid**. I'd just like to make a comment on what Mr. Bernthal said, and then I'd like to ask Commissioner Asselstine to comment on the two points I raised.

First, you noted two characteristics of this program, which are rapid compensation and collective indemnity. You didn't mention the limit on liability which is the issue here. I would simply note that there is no limit on liability on Superfund, while there are some areas in which a similar procedure has been adopted, such as the airline industry. I said it was extraordinary, not unique, so I didn't mean to suggest it was the only one, but I think it is a rare departure—I'll put it that way—from prior activity.

Commissioner Asselstine, could I ask you to comment on both of the questions that I had asked earlier?

Mr. **Asselstine**. Yes, Senator Mitchell.

First, I start from the principle that I think that if you have an adjudicated claim, everyone would agree that that claim ought to be paid. And the question really, then, is who pays for it? I think that no one argues that the victims of the accident who can demonstrate that they were injured ought to bear that cost. No one wants that, so the only question then is, if you have adjudicated claims under the system who should pay for it? And I think that the reason why this activity in Price-Anderson is somewhat unique is that you have the potential for this catastrophic accident which goes far beyond the capability of the individual utility to pay, particularly the utility that has the accident, and therefore what the Congress has mandated increasingly over the years as the act has been amended is a self-insurance program where all of the utilities share in insuring themselves for the cost of an accident. And to me, the question is how far you want to go at the outset in putting the framework in place to compensate the victims of an accident, and how much discretion and flexibility you as Members of Congress want to retain for a future Congress once that accident has happened.

The reason why I continue to favor the 1983 Commission proposal, which is the annual limitation on liability year after year, is because I think it maintains the maximum Congressional flexibility for the future. It puts in place a system that will provide the $10 million per reactor per year payments on a continuing basis. To me, that is a reasonable amount, and I think that the studies that have been done by our staff show that the utilities have the capability to pay that amount on a continuing basis, at least for some period of time. It does not give the industry an absolute limit on liability and an argument to say, "regardless of what a future Congress wants to do, we think we have a legal defense against any further contributions," and at the same time it gives a future Congress the flexibility to step in and say, "enough is enough; we think the burden has finally reached too great a point on the industry, and now we'll open the doors of the Federal Treasury to ease that burden somewhat.

The problem I have with the liability limit provisions such as in Amendment 3238 is that they decide that question now. They tell the industry, "this is the limit on your liability, and after that you have a very strong argument against any further efforts by the Congress to come back to you for any additional money;" and then, if you're going to compensate the victims and the cost of compensation exceeds the amount of money under the system, the only alternative, I think, that you have at that point is the Federal Treasury.

My view is that you're better off by saying, "here's the framework and the system; we retain the discretion to step in later on and ease the burden on the industry if we think that's appropriate," rather than telling the industry up front, "this is the limit, and regardless of whether we think the circumstances justify some different course down the road, you are protected." That's why I favor the approach that the Commission recommended in 1983.

Senator **Mitchell**. I think you make a very persuasive argument, as you always do when you appear before this committee. But the reality is, we had a vote last year on unlimited liability. Alan remembers it. Senator Hart offered it, and it was defeated.

And I don't think the composition of the committee has changed to the point where—Alan, you remember that?

Senator **Simpson**. Yes, I do.

Senator **Mitchell**. And it was after that vote that we then fashioned the compromise that we passed out of this committee.

Senator **Simpson**. I was thinking, it was a 9 to 6 vote.

Senator **Mitchell**. Something like that, yes. I voted with Senator Hart, but as Senator Breaux said earlier, we've got to deal with the realities that we have here.

Mr. **Asselstine**. I recognize that, Senator Mitchell. And I guess what I would say is that it looks to me as if S. 843, Senator Stafford's bill, may offer you a middle course. And what that bill does, I think, is help ensure that the victims that have adjudicated claims will be compensated by Federal indemnification, but it also helps leave open the door that if the Congress should decide at that point that the industry really ought to bear a further obligation, that you at least have some basis for making that decision at that time. I think it's a middle ground that really falls squarely between the two. While I've continued to prefer the annual limit on liability approach, I think S. 843 also offers a reasonable way to help ensure the objective that we all share, which is making sure that victims with adjudicated claims are compensated, and at the same time give a future Congress the maximum flexibility to decide who should pay. Should it be from the Federal Treasury, or should it be from the utilities?

Senator **Mitchell**. Thank you.

Mr. Chairman, this is a tough issue. Alan and I have been on this now for a couple of years, and we look forward to working with you on it. There are very sharply divergent views and strongly held feelings, but I'm confident that if we work at it with the spirit of trying to move toward the objective, that we can produce a bill under your guidance.

Senator **Breaux**. Absolutely, Senator Mitchell.

The Senator from Nevada?

Senator **Reid**. I have no questions.

Senator **Breaux**. I think Senator Simpson had one question.

Senator **Simpson**. I just have one question based on what George brings up and what you bring up, so I guess I would address this to Jim Asselstine.

Under the current limited Federal indemnity, let's assume we have an accident involving a DOE contractor, and the court awards $400 million to the claimants—$100 million for actual damages, $200 million in punitive damages, and $200 million in psychological stress. That sounds like a legitimate judgment somewhere. Under the procedures in effect today, how would that claim get paid? And what opportunity, if any, would there be to review the court award, particularly with respect to the punitive aspects of damages and the psychological stress award?

Mr. **Asselstine**. Senator Simpson, my understanding from our General Counsel is that if you had an adjudicated judgment of that type under Federal indemnification, that a litigated judgment would come from the judgment fund which now sits at, I guess, around about $300 million. As a practical matter, I suspect if you had a judgment, then, in that range, you would have to have appropriated funds to pay it since the amount just doesn't exist in the judgment fund, and I think there would be, therefore, an opportunity for further Congressional review. So that does give you a handle in the case where there's Federal indemnification, I think, in the size of these awards.

Senator **Simpson**. Well, in theory it sounds great, but in reality it's tough, tough, tough.

Mr. **Asselstine**. Well, my own view would be that that would be appropriate. That gives the Congress an opportunity to take a look at those and make a judgment.

Senator **Simpson**. I don't ever see Congress not messing around if we have another transient, whether it's 15 curies or leaks from a tube or what. That's the way it is.

Thank you, Mr. Chairman.

Senator **Breaux**. I want to thank the panel, Mr. Chairman and all the members. We'll be submitting additional questions, I know, from some of the other members which we would like you to respond to as quickly as you can. Thank you for your appearance.

Mr. **Zech**. Thank you.

Senator **Breaux**. I'd like to welcome our next witness, Mr. A. David Rossin, who is Assistant Secretary for Nuclear Energy at the Department of Energy, accompanied by some of his staff colleagues. If they would please take their place at the table we will continue.

Mr. Rossin, we have your testimony. If you would be so kind as to try to summarize it, we could proceed to questions.

STATEMENT OF A. DAVID ROSSIN, ASSISTANT SECRETARY FOR NUCLEAR ENERGY, DEPARTMENT OF ENERGY, ACCOMPANIED BY JEROME D. SALTZMAN, DEPUTY DIRECTOR, OFFICE OF POLICY AND OUTREACH, OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT; AND SUSAN KUZNICK, ATTORNEY, OFFICE OF GENERAL COUNSEL

Mr. **Rossin**. Thank you, Mr. Chairman.

Price-Anderson is enlightened legislation. It has accomplished its objectives at no real cost to the taxpayers. Ironically, as this legislation with such an outstanding track record comes up for renewal, some amendments are being proposed that would effectively break the bargain on which it depends. That bargain involves a meeting of minds, crafted by Congress, which carefully manages the public need for assurance of compensation if a very serious accident ever does occur, with insurance for the organizations which accept the responsibilities for operating nuclear facilities.

Yesterday we met with representatives of a number of our major contractors. We stated our positions and listened to theirs. We found a broad consensus. I wish to report on it to you since it is consistent with, and complements, my statement.

Price-Anderson's indemnity is grandfathered for licensed nuclear plants, but DOE has some special concerns. We believe that contracts will remain in force, but if amendments result in significant changes, contractors will reevaluate them and could conceivably find that their fundamental bases had changed; and, when current contracts come up for renewal, the availability of an effective

Price-Anderson will affect decisions by contractors with regard to continuation or for bidding for new commitments.

Certain proposed amendments, if enacted, would likely result in most of our major contractors choosing not to renew.

Looking to the future, it is clear that Price-Anderson would be vital if new nuclear power plants are to be considered by utilities as a means of adding new generating capacity. The entire DOE reactor development program is aimed at seeing nuclear power reenter the marketplace, and for the future, to develop alternative nuclear power concepts that are even safer, more efficient, and more economical. Without the protection provided by Price-Anderson, these new plants will likely never be seen.

DOE's contractors include some of the Nation's leading industrial corporations and universities. They choose to enter into this special relationship with DOE. All contracts call for DOE oversight and allow DOE to terminate contracts or withhold fees if performance falters. In every case, our contractors believe that the activities that they are performing are important to the Nation and its future. They gain value from the involvement, and this factor affects their comparative bid to participate. As an example, Princeton University considers its fusion facility to be an outstanding research facility, bringing top faculty, researchers and students to its campus.

Our contractors are responsible organizations. They are accountable to DOE, to the public, to their corporate management or trustees, and to their investors or, in the case of universities, to their State taxpayers and contributors. They accept responsibility and the risk that goes with it, and receive a fee. If the risks are made huge relative to the fee, responsible organizations may prefer not to accept such responsibilities.

I am disappointed to hear emotional arguments which suggest that these organizations would risk the safety of their people, their neighbors, and their corporate reputation because they have a well-designed insurance program. Such claims are transparent. Would anyone drive counter to traffic on an interstate highway just because he had a big insurance policy? On the contrary, to drive properly on the proper side of the highway, every one of us would make sure to have liability insurance. It's common sense. A responsible citizen would not choose to put his life and his family's future at risk by driving without insurance. Price-Anderson provides a prudent insurance policy and the bargain on which it is based promises prompt and fair compensation to injured parties.

If Price-Anderson is ended or if amendments destroy the balance so as to discourage responsible contractors, the public will be the loser. If DOE contractors do not choose to renew, DOE may have much less attractive options to choose from. Corporations might be set up with no capital assets and no tradition of performance and responsibility. Thus, there would be nothing to sue. Top quality management would no longer be part of a corporate career path, depriving DOE of top talent.

If no acceptable contractor can be found, the alternative would be for DOE to hire the staff and management as Federal employees. This would eliminate the accountability leverage we now hold over contractors and would add huge numbers of persons to the

Federal payroll; in some cases, 100 times as many people as those now in Civil Service in relation to the operation.

Responsible contractors would also have to include in their bid an allowance for potential expense for lawsuits or civil penalties based on historical statistics, not on any expectation of inadequate performance. This would simply raise the cost to taxpayers.

What kind of changes would threaten the basic bargain of Price-Anderson? First, abrogation of the sovereign immunity provisions of the Federal Tort Claims Act, thus allowing the Secretary of Energy to be sued as if he were a contractor, a provision in S. 44 and in Amendment 3238 to S. 1225. With this single exception, however, DOE could support Amendment 3238 to S. 1225.

Another basic change that would affect the bargain is any provision that eliminates the limit on liability, as in S. 44, and, I believe, as in S. 843 as well. Allowing payment of claims above the Price-Anderson limit, perhaps set by a court with Congress only determining the source of the funds as in S. 843, would also break the bargain. Contractors could not prudently put their corporate assets or endowments at risk, even if such an event is extremely unlikely. DOE opposes any such provision or allowing no fault recovery claims for wide ranges of incidents below the extraordinary nuclear occurrence threshold.

DOE also opposes subrogation for contractors. This provision would allow the Government to sue contractors and subcontractors for gross negligence or willful misconduct. This sounds attractive on its face, but it could destroy a critical part of the basic bargain. DOE holds its contractors accountable, and Price-Anderson provides insurance against unlikely but potentially huge claims.

We also oppose civil penalties for violation of DOE safety orders. Contrary to some statements, there is no evidence that provisions for civil penalties have any positive effect on contractor performance. In fact, it requires a bureaucracy to administer the system and lawyers to contest every action. Costs go up. Potential risks to contractors go up, and it makes it unattractive to become a DOE contractor. DOE opposes allowing certain classes of contractors to be immune from financial risks while others are not. Experience warns that many kinds of exemptions might be proposed if this were allowed.

Some who criticized Price-Anderson reconsidered after Bhopal, and we have heard discussions of this this morning. None of those victims at Bhopal or their families have received any compensation. The future is unclear for them.

No one wants a disaster, but the world involves risks, and prudence urges effective insurance. Price-Anderson is truly one of Congress' better accomplishments. I would suggest that if it ain't broke, don't break it.

Thank you.

Senator BREAUX. Thank you very much, Dr. Rossin. Let me start by pursuing the question that others will raise later on this afternoon, and one makes the point that DOE has the authority to require your contractors to purchase private insurance, but you have apparently chosen not to exercise this option. I was wondering if you would comment on why DOE hasn't exercised this option. I mean, in the commercial sector, obviously we're making utilities buy insurance. Why is it a different policy in our same Government with regard to DOE's authority to require contractors to purchase liability insurance?

Mr. ROSSIN. There are a couple of important points. Obviously, the companies that we deal with do buy insurance for their own purposes. Many of them have a vast array of insurance policies.

For DOE contractor activities, it's clear that if the contractor bought insurance to cover those particular activities, the premiums for that insurance coverage would be a legitimate cost under the terms of the contract and would merely be paid by the Federal Government.

Senator BREAUX. Pursue the point with me for a little bit for the record, understanding that a contractor doing work for DOE is indemnified by DOE for any liability that they might have. Why would they be also paying very expensive premiums to cover that type of liability which DOE is going to assume in the event of a mistake anyway?

Mr. ROSSIN. They don't.

Senator BREAUX. They don't?

Mr. ROSSIN. They don't. That's right.

Senator BREAUX. And your point is that if they did, they would just pass the premium cost back to DOE?

Mr. ROSSIN. It would be a legitimate reimbursable cost under the terms of their contract with the Federal government.

Senator BREAUX. So it's a wash as far as the cost to the Government? That's the point that you make?

Mr. ROSSIN. I mean, we do not even permit them to do that because we provide the coverage. In other words, we say no, don't go out and buy insurance; we'll provide the coverage. We don't want them to do it independently and pass the costs through under the contract.

Senator BREAUX. The major difference, I think, is very obvious. They could probably buy $100 million worth of coverage for—I don't know, say $5 million. They can only pass the $5 million premium back to the Government, to DOE, as the cost of doing business. Right now, they're really passing all of the liability back to the Government in case they make a mistake. Say the $100 million is what the accident costs because of their negligence. You're eating the whole $100 million. Now, if you required them to buy liability insurance, the only thing they could pass back to you as the cost of doing business would be the premium, which would be substantially less than the liability on a particular accident.

Mr. ROSSIN. That may be true, but the system we have does work very well and does provide the protection that both the contractor and the Government need.

Senator BREAUX. I question, though, whether we're not providing too much to the contractor. He's getting a pretty good deal if he says, look, I can be negligent; I don't have to buy insurance; if I did buy insurance, I'd pass it on to the Government at the cost of the premium. Aren't we giving them one heck of a deal? What's the incentive to not be negligent, to have a higher standard if they're not required to do anything other than make a mistake and pass it over to the Government to eat the cost of their mistake?

Mr. ROSSIN. The incentives for a contractor to perform well and not to make mistakes and not to cause accidents, I think, are basic. I really do not believe that the existence of insurance coverage makes a lot of difference in terms of a contractor's desire to do a job right and be safe. The repercussions to that contractor would be terrible and huge if he was ever guilty of a mistake that resulted in the kind of accident that we're talking about.

This system works because it's well-designed and because there's a bargain that has been struck here. Our contractors bid for their contracts. They understand the rules under which DOE operates; and as I said, we have a system that does a very good job with this.

Senator BREAUX. I'm not arguing about the fact that it's working. I'm arguing about where the legitimate question of liability for mistakes would have to lie. It's working fine, but it's a question of who picks up the costs if somebody makes a serious mistake. We have the authority to require that insurance be bought, and DOE has not exercised that authority.

Let me ask you another point. I want to get on to something else.

What is the Department's position on amendments that I know have been proposed—I think by Senator Metzenbaum—that would exempt from the Department's indemnification agreements liability that arose from the reckless behavior, gross negligence, or willful misconduct of the contractor?

Mr. ROSSIN. We believe that DOE has ample mechanisms for dealing with willful misconduct or gross negligence. But we also believe that for the system to work under Price-Anderson, we have to provide the indemnity as structured now. I know it sounds very strange and somewhat unappealing to say that you're providing something to cover willful misconduct or gross negligence, but that's exactly what insurance policies protect organizations against. They protect against something that they don't expect to happen, and if it does, they buy insurance to provide protection. That's what the Act does.

Senator BREAUX. I understand your statement on it. Let me point out that I think that our Government seems to be inconsistent on this question. I note that in previous testimony by the Department of Defense, and also the Department of Justice, regarding another piece of legislation, the Defense Department in the last Congress made the following statements before the Congress:

> Blanket indemnification may reduce a contractor's incentive to assume responsibility for the performance of their products by shifting part or all of the liability onto the Government.

The Department of Defense and Department of Justice also said:

> Indemnification removes the safety incentive created by the tort system. To the extent that liability can be passed to the Government, neither the contractor nor the insurers have a financial interest in ensuring that a product is made with the safety of the user in mind.

That's the position of our Government on other legislation. When it comes to nuclear contractors for DOE, we have a different position, and I just don't understand the logic of the argument in one case versus the logic in this case. Why is it not appropriate in case number one and not in case number two?

Mr. Rossin. Well, nuclear is a special case. The testimony you just read is not my testimony, and I don't find that it applies to DOE's contractors very well.

I think the important thing is that—because we're dealing with nuclear issues—it's vital to maintain the balance that Congress created 30 years ago when it set up Price-Anderson. What it does is provide compensation for the public and a waiver of defenses, which means that the injured party doesn't have to prove fault in order to get compensated. That's the bargain we've struck and we think it's a proper one and an appropriate one.

Senator Breaux. But isn't the major difference in that case that we're requiring the utilities to come up with insurance, $160 million? I mean, they're putting something on the table. We're telling the victim, you're going to get adequate compensation early and up front without having to prove liability. But we're also saying to the people who may be responsible for making a mistake, it's going to cost you something. It's going to cost you an annual premium. It's going to cost you a kick-in on an annual basis after that insurance is gone, but it's a different set of rules when we set it up with DOE. We're saying the Government is going to eat the cost. We're not going to require the contractors to come up with insurance. We're not even going to fault them when it's willful negligence or gross negligence, the highest and worst amount of negligence possible under any system of law. But then when we get to other Defense-related contractors, not nuclear, we say, no, if we absolve you you're not going to have an incentive to do well.

I find it so inconsistent in this area. Nuclear commercial is treated one way by the U.S. Government; nuclear DOE is treated an entirely different way. Contractor liability in one area with DOD is treated one way; contractor liability with the nuclear industry is treated an entirely different way. It is so inconsistent. And it is hard, I think, for you to sit here and say that this all makes sense.

Mr. Rossin. It is confusing, but it does make sense. I think it's extremely important if you want the objectives of the Act to be accomplished. Those objectives are to provide assurance to the public of prompt compensation; not a Bhopal-type situation, and not one in which they have to make the case under State tort laws that they were injured and that a certain party caused it by negligence.

We've provided a bargain here. I think what I said before, and what some of the NRC Commissioners said before, is that Price-Anderson is a unique piece of legislation and it may very well turn out to be model legislation which can be the basis of an improved system.

Nuclear is an emotional issue, and one of the reasons that Price-Anderson came to be is because it was recognized that in emotional issues it is very hard to predict statistically what kind of claims there will be. We know that we've worked very hard to establish a safe industry, and we believe that the kinds of accidents that we're talking about are extremely unlikely. Therefore, what we're trying to do is set something up which provides protection against the unlikely event, but does it without a history of statistics like normal insurance has. We recognize the first tier under commercial insurance. We think that was a wise provision. It was part of the bargain, part of the balancing that came into Price-Anderson. We don't think it really accomplishes anything if we do it with DOE contractors. As you said before, it's a wash.

Senator BREAUX. It's a wash only on the premiums. It's not a wash on the liability for the damages after the premiums are paid.

Mr. ROSSIN. No, but the contractor has the protection of Price-Anderson regardless of whether he buys the first tier or not.

Senator BREAUX. Senator Stafford?

Senator STAFFORD. Thank you, Mr. Chairman.

Dr. Rossin, I note that you've devoted at least a page to legislation which I've introduced on this subject, S. 843. Are you familiar with the legislation in this field that Congressman Udall and Congressman Sharp have introduced in the House of Representatives?

Mr. ROSSIN. Yes, I am.

Senator STAFFORD. Do you agree that their legislation and mine is virtually identical except for the provision with respect to possible liability compensation beyond $7 billion?

Mr. ROSSIN. Yes, I believe they are consistent, with that important exception.

Senator STAFFORD. All right. Thank you.

In connection with your statement, on page 5, I gather that you are opposed to fully compensating the public after any nuclear disaster which might exceed $7 billion. Is that correct?

Mr. ROSSIN. Not necessarily. I believe that if there is a need for compensation beyond the limit of liability set up in Price-Anderson, then Congress should act to take care of legitimate claims. I believe that the firm limit on liability for those who participate in nuclear activities, be they utilities or our contractors, that the firm limit on liability for them is an essential part of the bargain of Price-Anderson and if that is lost, then Price-Anderson no longer exists in an effective form. I'm sure that, as Senator Simpson said before, if there is a legitimate need for Congress to take action, then Congress would take action.

Senator STAFFORD. Well, I would suggest that that's what we tried to do in S. 843, and I do call your attention to the statement of yours on page 5 that says:

> The Department continues to strongly oppose unlimited liability for both DOE contractors and NRC licensees,

Which to me seems to suggest that you're opposed to fully compensating the public in the event of a nuclear disaster.

Mr. ROSSIN. No, that's not what we said.

Senator STAFFORD. I've quoted exactly what you've said in your statement.

Mr. ROSSIN. The crucial thing is that for an organization to operate a nuclear facility, they've got to have some idea of what the potential exposure is that they carry. That's why the Price-Anderson system was created by Congress. There is nothing that stops Congress from going beyond that limit if there is a legitimate case for it. The legislation calls for those premiums to be paid, and Congress to determine who pays them.

S. 843 implies that you open up the contractors or the utilities to additional claims above and beyond the cap, and I believe that that would make the system unworkable.

Senator STAFFORD. Well, maybe we have to respectfully disagree on that.

Absent the provisions for unlimited liability as I've provided for them in S. 843, do you find otherwise that piece of legislation to be acceptable?

Mr. ROSSIN. In general, we do. Let me just check with my counsel.

Senator STAFFORD. Certainly.

Mr. ROSSIN. Senator, to the best of my knowledge, that's true. I made a couple of points during my statement of things that give me great concern; I don't believe they are in S.843

Senator STAFFORD. All right, let me come to one final matter, then.

You and I may have a misunderstanding or a difference of opinion on how victims of a nuclear accident may be best assured of full compensation for documented injuries. I gather you would prefer some kind of an administrative procedures, and that suggests to me that you don't have any particular confidence in our court/tort system. But I believe that every victim should have the opportunity to present their case to a court of law. Am I correct, then, that your position is different from the one that I've just stated?

Mr. ROSSIN. Well, I'm going to ask counsel to expand on this, but the basic bargain of Price-Anderson involves a waiver of defenses. That's totally different from a simple tort law system in which a claimant has to prove negligence in order to collect. If we're not going to have another Bhopal, if we're not going to have a situation in which claimants wait years and years for decisions on appeals, then we have to have a bargain, and that's what Price-Anderson does.

Susan, would you like to expand?

Ms. KUZNICK. Yes. The Department feels that it's appropriate for the Government and the Congress to reserve the right after an accident of a magnitude that would exceed the $7 billion initial limitation on liability to take a look at that situation and to determine whether perhaps the tort system would not work in that particular situation. An administrative system, a more streamlined system than even the waiver of defenses provision provides, may be more appropriate for a major catastrophe. That is something that Congress has provided for in other situations, such as the Teton Dam disaster, where claims were paid expediently and attorneys' fees were eliminated to some degree. There could be other types of damages, other then actual damages that would not be paid, such as pain and suffering and loss of consortium. Although we don't think that tort law should presently be changed under the Price-Anderson system, we think that Congress should reserve the right to do that in the event of a major catastrophe.

Senator STAFFORD. All right, thank you.

Thank you, Mr. Chairman.

Senator BREAUX. Senator Reid?

Senator REID. Thank you, Mr. Chairman.

Doctor, as I understand the Price-Anderson Act it was originally developed to entice private capital into the construction of nuclear powerplants. Is that right?

Mr. ROSSIN. I wouldn't use that word. It was to make it possible.

Senator REID. Okay.

Then as far as the State of Nevada is concerned, in 1982 or 1983 we had the Nuclear Waste Policy Act that related to the disposal of the waste from these facilities. You're familiar with this?

Mr. ROSSIN. Yes, sir.

Senator REID. It's my understanding of that act that nuclear utilities will bear no legal responsibility for the Federal contractors that dispose of this nuclear waste because—it's my understanding of the law—once it's removed from the site it becomes the property of the Federal Government. Is that right?

Mr. ROSSIN. That's right.

Senator REID. And it's my further understanding that the risk of environmental damages following that has been assigned to the host State. Is that right?

Mr. ROSSIN. That's not my understanding. I'm going to ask Jerry Saltzman from the DOE Office of Civilian Radioactive Waste Management to expand on that.

Mr. SALTZMAN. Senator Reid, I guess I don't quite understand what you mean by the "risk."

Senator REID. Okay, let's assume that Yucca Mountain, Nevada is chosen as the site to dispose of the first 70,000 tons of high-level nuclear waste, and for some reason the site leaks and there is damage to the environment. Who cleans up the environment? Whose responsibility is that?

Mr. SALTZMAN. The responsibility would be the DOE contractor under the Nuclear Waste Policy Act as the operator of the site.

Senator REID. Okay.

Mr. SALTZMAN. It would be covered under Price-Anderson.

Senator REID. I didn't understand the law that way, and that may be the case but that isn't the way I read it. You're quite certain——

Mr. SALTZMAN. That's with respect to third party liability. Assuming that all of the site cleanup costs can be considered costs of liability, then it would be assumed under the Price-Anderson Act that the contractor for DOE would carry those, and DOE would indemnify them.

Senator REID. And using that same logic, then, let's assume that there's some type of an accident as the waste is being transported to the high-level site. That same legal logic would apply?

Mr. SALTZMAN. If virtually any of these bills that are presently being considered were to be enacted——

Senator REID. I'm talking about right now.

Mr. SALTZMAN. Right now?

Senator REID. Yes.

Mr. SALTZMAN. It's a funny situation in that right now, in transportation from a reactor to—well, there's no repository—to a place that the fuel is going, it is covered under the reactor licensee's indemnity agreement until that transportation ends.

Senator REID. Okay, then the statement that you gave me previously was based upon the Stafford bill or one of the other bills passing?

Mr. SALTZMAN. Yes. Would you like me to consider that question in terms of today?

Senator REID. Yes, that's what I was talking about.

Mr. SALTZMAN. In terms of today, any activities that were carried out at the site in Nevada that led to the nuclear incident would be done by a contractor of the DOE and would be covered under an indemnity agreement executed in accordance with section 170(d) of the act.

Senator REID. Okay. Now, for example, under the Stafford bill, it's my understanding that he addresses this in a different fashion. Is that right?

Mr. SALTZMAN. As I understand the Stafford bill, the first $7 billion or so would be covered by the Nuclear Waste Fund. But again, that would be the source of funds to pay for the accident. The accident would be paid by the Federal Government using the Nuclear Waste Fund.

Senator REID. I can see the attorneys chomping at the bit here.

Ms. KUZNICK. Excuse me, Senator Reid. I just wanted to ask you a question for clarification because I think there is a confusion as to the question.

I think the question is more with regard to transportation today. If there were a repository today and if, under the present Price-Anderson situation, there was a shipment from a reactor to that repository and an accident on the way to the repository—even though title would be in the U.S. Government, under our indemnity agreements the NRC licensee from whose reactor the spent fuel was going would be responsible for the liability that arose in that accident. Under Mr. Stafford's bill that situation would be changed and it would be under the DOE indemnity that the Price-Anderson coverage would come, and the Department has no objection to that kind of provision.

Senator REID. Okay. If in fact there is no change in the law and there is a nuclear waste repository built and there is an accident at the site, would the same apply if we had no Stafford bill? Present law?

Ms. KUZNICK. Under present law if there is an accident at the site, it would be covered under a Price-Anderson indemnity agreement. We have made that commitment in all of our disposal contracts that when we have a site under the Nuclear Waste Policy Act for disposal of spent fuel, we will cover that facility——

Senator REID. But that is by contract, not by law. Is that not the case?

Ms. KUZNICK. The law is presently discretionary. It gives the Secretary authority to do that, yes.

Senator REID. Okay.

Ms. KUZNICK. And the Secretary has decided to do that.

Senator REID. So it's clear to say that if Stafford were passed, that would be a matter of law and not contract with the DOE?

Ms. KUZNICK. The Stafford provision, I believe, requires the Department to——

Senator REID. It would mandate it?

Ms. KUZNICK [continuing]. Provide the facility with Price-Anderson coverage.

Mr. SALTZMAN. I might add, Senator Reid, that the Department supports applying Price-Anderson directly to waste activities in all of the bills. It is a position of the Department that this be done explicitly in the Price-Anderson Act.

Senator REID. But as I understand it, the problem is that that is not the law now.

Mr. SALTZMAN. The law exists now to give us discretion to do it, and we will exercise that discretion, but we support the law being changed in order to take away the discretion and make it mandatory.

Senator REID. Thank you, Mr. Chairman.

Senator BREAUX. Thank you, Senator.

I'd like to thank the panel and Dr. Rossin for your appearance and for your answers. There may be some questions that other Members May submit that we would like you all to respond to.

This panel will be excused.

We'd like to welcome at this time representatives from some of the States, randomly selected.

Representing the State of Washington, Mr. Charles Roe. Representing the State of Nevada, Mr. James Davenport. Representing the State of Texas, Mr. Steve Frishman.

Gentlemen, we welcome all of you and are pleased to receive your testimony.

Mr. Roe, we have you listed first, if you'd like to go ahead and proceed.

STATEMENT OF CHARLES B. ROE, JR., SENIOR ASSISTANT ATTORNEY GENERAL, STATE OF WASHINGTON

Mr. ROE. Thank you, Mr. Chairman. My name is Charles Roe and am an employee of the Office of the Attorney General of the State of Washington. My appearance today is on behalf of both Governor Booth Gardner and Attorney General Ken Eikenberry.

A statement has been filed on behalf of Governor Gardner. He has filed the statement, Mr. Chairman. It would be my request that that statement be included in the record of the committee, and further that it be noted that Attorney General Eikenberry joins in this statement of Governor Gardner. Rather than read that testimony, if it is satisfactory with you, I will approach it in a summary fashion.

Senator BREAUX. That would be helpful.

Mr. ROE. Let me begin, Mr. Chairman, by providing a brief background on how we became involved in Price-Anderson type issues. Shortly after the Nuclear Waste Policy Act was enacted, the State of Washington and the United States Department of Energy entered into consultation, cooperation and negotiations as contemplated under the Nuclear Waste Policy Act. During the course of those negotiations, which extended over a two-year period, one of the major issues that developed, one which we could not agree with, was the nature of the liability of the United States to the State of Washington and its people for injuries arising out of nuclear incidents.

As a result of that experience we began working with our neighbors and friends from other States, including especially the States of Texas and Nevada, as well as many, many others, and along the way we developed a consensus, I think, on what should be in this type of legislation, especially as it relates, Mr. Chairman, to the Nuclear Waste Policy Act and its implementation. In other words, we're dealing with the waste programs.

I would emphasize four key elements very briefly that we encourage your committee to include in any legislation.

First of all, we are very strongly supportive of a policy of strict liability with regard to the application to all injuries arising from nuclear incidents under the waste program.

Secondly, in the same fashion we support full compensation for all damages. In other words, no caps on the compensation feature.

Thirdly, and this is a more difficult one to deal with, we would certainly support a red tape-free system of paying compensation.

And finally, Mr. Chairman, we had the feeling that the United States itself should be directly liable for all damages arising out of the 1982 repository program.

It is clear from our evaluation of the bills that none of these bills meet all four of these requirements. Even so, these bills, especially S. 843, do have certain attractions. I want to emphasize one point, and that deals with the unlimited liability or full compensation feature of that bill.

As we understand it, there is no cap on liability. If there are damages up to $7 billion but not exceeding it, the funds for damages will be paid out of the Nuclear Waste Fund; thereafter—again, as we understand that bill—Congress will pay in some fashion not yet determined, and perhaps assisted by a Presidential commission, and determine how to pay for any damages in excess of that $7 billion figure.

Among the bills that are in the Senate now that we have been asked to look at, we feel that bill satisfies prime fundamentals that we talked about the outset, namely, strict liability and full compensation.

Now, we do want to address the one weakness that we see in S. 843. At the present time it does not appear to cover injuries arising from activities of the United States when the United States is directly carrying out responsibilities under the Nuclear Waste Program. We would hope that if S. 843 is the centerpiece of your considerations, that you would reconsider and add a feature which is now contained in S. 748, Section 7, introduced by Senator Johnston and others.

There are other features of the bill that are highlighted in our testimony that I will not repeat here. I will conclude by dealing with a subject that has come up at this hearing, and address what I call the egregious contractor conduct problem.

We think that that is an area that should be considered by the committee. We believe that the intentional misconduct, "reckless misconduct" are the words of the Chairman, should fall within the scope of an exception to the excuse from liability that's now enjoyed by contractors with the Federal Government.

With that, Mr. Chairman, that concludes my summary. Thank you.

Senator **Breaux**. Thank you, Mr. Roe.

Mr. Davenport.

STATEMENT OF JAMES H. DAVENPORT, SPECIAL DEPUTY ATTORNEY GENERAL, STATE OF NEVADA

Mr. DAVENPORT. Thank you, Senator Breaux. Let me say that I appreciate the opportunity to be here today. And Senator Stafford, it's very nice to see you, and Senator Reid.

I would like to have my comments submitted for the record if I may.

Senator BREAUX. Without objection.

Mr. DAVENPORT. I would like to begin by responding to the point which was made by the Department of Energy representatives here this morning with respect to the "bargain" of Price-Anderson. The statement "if it's not broke, don't break it" is something we should all remember, but I think that the real question here is whether the "bargain" which was originally fashioned in Price-Anderson continues to be a viable bargain, whether it is the bargain that the Federal Government wants to be in today, even though it was 20 years ago.

I think a way to go about analyzing that question is to pursue the line of reasoning that was in Senator Reid's question and look at the purpose for which Price-Anderson was originally enacted, that being to provide a means by which private enterprise capital could safely and reasonably come into the energy option and provide nuclear power in this country, and at the same time provide a quick compensation—and a full compensation, hopefully—for anyone that might be injured by an accident involving nuclear power.

In the nuclear waste area, the Federal Government utilizing DOE contractors has essentially taken over a job which the nuclear industry had before, that being the job of disposing of its wastes. And part of the Nuclear Waste Policy Act, by which the Federal Government took over that job, described that the title and control of the nuclear waste would leave the nuclear industry and go to the Federal Government. Well, if you didn't have a Price-Anderson Act, common law would tell you that, with control and ownership of that nuclear waste, would go liability. You can see that the transfer of the liability for nuclear waste management from the utilities to the Federal Government perpetuates the same purpose that Price-Anderson was originally enacted to accomplish, namely, to take away a liability which the industry might have, and therefore enhance the likelihood that nuclear power would be an option in this country.

If transfer of waste ownership and control, and thus liability, has happened, does it makes sense to maintain the same limitation on liability for those DOE contractors who will now handle that waste which pertained to the nuclear utility which handled it before? The policy purpose for limiting liability just isn't there any more. In fact, the better policy purpose would be to make the liability unlimited so that the public perceived that they would be made whole in the event of a nuclear waste accident, and would not therefore be critical of nuclear power, that the nuclear power option would remain as a better viability. So what has happened is that the device of a limit on liability has become counterproductive to the original purpose of Price-Anderson.

Now, the DOE witness here today said that if you had a full indemnification process for DOE contractors, they would be less likely to contract with the Government. But that just doesn't make sense. If there were no limit on liability and no limit on indemnification, that is, the Federal Government insured all of the contractors' liabilities, then the contractors would be more willing to interact with the Government. So I think that the Department's conclusion in that regard is not correct.

The Stafford bill, S. 843, recognizes an important distinction, and that's the distinction between the legal obligation to make a party whole—that's the obligation which, as Senator Mitchell was pointing out this morning, is typical across common law—and the economic ability to make a party whole. Any lawyer who has gotten a judgment against a judgment-proof debtor knows that the judgment is only worth the paper it's written on. You have to have a party that you can collect that judgment against. That distinction between your right to recover and your ability to recover is the distinction between the limit on liability and the limit on compensation. The Stafford bill, which the State of Nevada supports, does not limit the legal right to recover; it only limits the amount of funds which are currently available to pay any judgment obtained. Above that limit, it allows Congress to designate where the funds will come from to pay that judgment. That is all that the State of Nevada has ever asked for in the Price-Anderson debate in the last couple of years. We want to know that there will be the ability to obtain full compensation, that the full legal remedy will be there. We acknowledge that this is a world where not everyone has the economic ability to pay their judgments. We hope that the Federal Government has the economic ability to pay its judgments. We would hope that we could obtain a full and a complete judgment against the Federal Government in the event of injury.

Now, that brings us to the ultimate question which, unfortunately, Senator Stafford, your bill does not include. As Mr. Roe described, the State of Nevada also would request that you go one step further, and declare that it is possible to gain recovery for the Federal Government's tortious action, as opposed to payment by the Federal Government for a contractor's liability.

The State's position is that there could be an instance where the contractor was not the party at fault, did not cause the accident. If you look at the Federal repository program, you see that the Department of Energy is supervising—or will be supervising—many contractors in the selection and design of a repository. And we hope that they will not, but they could make a mistake. The Department of Energy could select the wrong site. They could select a site which is not successful at isolating nuclear waste. Hopefully that would not be the case. But in that event, had those contractors all done their jobs responsibly, there would be no right to obtain a judgment against those contractors and there would therefore be no Federal responsibility to pay those judgments. But there still would be an environmental event which would have to be fixed, and that leads to Senator Reid's question about who bears the burden of risk of environmental repair at a repository?

We feel it's necessary, in this legislation or some other, to declare that the Federal Government will be responsible for accidents which arise from the Nuclear Waste Program, not only through the indemnification of its contractors but also from the payment for the Federal Government's own liability. In my statement I have suggested some specific language which would accomplish that objective.

Now, the Department of Energy has declared that Price-Anderson currently covers instances of repository breach, and they are right. But the current Price-Anderson, of course, has a limitation on liability. It would be easy to expect a scenario that cleaning up a repository breach or leak would well exceed the statutory limits of current Price-Anderson, and might exceed even the limitations proposed by the Stafford bill. You could get into a situation where the risk of cleaning up that environmental degradation was borne by the host State. The State of Nevada believes that that is not a correct assignment of that potential risk.

Thank you very much.

Senator **Breaux**. Thank you, Mr. Davenport.

Mr. Frishman.

STATEMENT OF STEVE FRISHMAN, DIRECTOR, NUCLEAR WASTE PROGRAMS OFFICE, OFFICE OF THE GOVERNOR, STATE OF TEXAS

Mr. **Frishman**. Thank you, Mr. Chairman. I appreciate the opportunity to be here today.

Financial responsibility for risks associated with the Nation's nuclear activities is a matter of great interest to the State of Texas, which not only houses four commercial reactors that are currently under construction, but is also—as with my colleagues here—is now housing a candidate high-level nuclear waste repository site. In addition, it is highly likely that radioactive wastes will be transported in large quantities through the State of Texas in years to come.

In response to the fact that Texas, too, has been randomly selected to participate today, most of my statement will focus on the financial responsibility needs associated with the management and disposal of high-level nuclear wastes that either are, or will become, the property of the United States Government. This is clearly an area in which Price-Anderson does not appear in its current form to be in step with the public's concerns regarding risk acceptance and financial responsibility associated with the imposition of real or perceived risks.

It is our position—and I think you will find it sounding quite familiar, as you have heard it from the States of Nevada and Washington already—that in the event of an incident in which radiation is released, victims should first receive full compensation from injuries which arise from that incident. Furthermore, the procedures for seeking and receiving such compensation should be understandable, effective, equitable, and provide for timely resolution of claims. Authorized State and local officials must also have the ability to respond to accidents in which public health and safety may be at risk through the use of a precautionary evacuation initiated by the responsible public official, without clouding a legitimate public safety and health decision with fear of the uncertainties of the financial burden which it may impose.

Of the bills which the subcommittee has asked that we review, Senator Stafford's bill, S. 843, appears to be the most responsive to the needs stated above, and addresses those needs in a supportable and achievable manner. In the ongoing controversy over management and disposal of high-level nuclear wastes, the approach taken by this bill will serve to improve public confidence in the Federal Government's acceptance of its responsibilities for this activity while recognizing that individual incidents may have unique injury and cost characteristics and require further time for their fair resolution. The bill also seems to strike a fair balance in its reliance upon the Nuclear Waste Fund for the first—and probably largest—source of compensation for injury and financial burden.

As you have heard from the representatives of Washington and Nevada today, it is our view that the bill could go an additional step in building the much-needed public confidence in the high-level nuclear waste management and disposal field by clearly providing that the United States, itself, has a defined liability for injuries and losses that may result from decisions made pursuant to the Nuclear Waste Policy Act. This would serve, beyond the indemnification of Federal contractors performing and implementing those decisions, to make clear to the affected public that there is a full commitment to safety on the part of the Government itself, as well as its contractors.

I would like to respond very briefly to the questions that were asked of us by the subcommittee.

First is the question, do we support full compensation to victims of a nuclear incident? Well, as I've stated already, yes, that is a leading principle of our position.

Second, should damages and causation continue to be determined according to established standards of State tort law? We believe so. The established principles of State tort law appear to adequately serve the needs of the citizens suffering injury and loss.

Third, how large are the potential consequences of a nuclear accident? This is difficult to establish, even for a broad range of potential financial consequences, and it might be more appropriately estimated by insurance experts or others such as the Nuclear Regulatory Commission whom you've heard from this morning already. The NRC at one time made an estimate that is quite similar to the aggregate deferred premium total which seems to be available under S. 843. Also under the bill—and I think this is quite important—it is not necessary to make a rigorous determination of a maximum consequence accident, but rather, the consequence is determined for each incident through claims filed, and the bill provides that associated injuries and losses will be compensated.

And finally, do you believe that the potential consequences of a nuclear accident are such that providing full compensation to the victims would likely cause economic hardship or severe disruption to the sources of funding? We're not experts in the area of utility finances, but the amounts of funds and payment schedules in all of the bills appear to be within the range that we have been told do not exceed utility capabilities, and this is similar to the NRC's discussion earlier. The Nuclear Waste Fund in the case that we described and in the case that we see in S. 843 is capable as a source to meet the potential requirements if the incident does occur as a result of Nuclear Waste Programs Act activities.

Thank you, Mr. Chairman.

Senator **Breaux**. I thank the panel for their presentations and their statements.

I get the impression that Mr. Frishman and Mr. Davenport sort of feel fairly comfortable with Senator Stafford's bill with maybe some adjustments on that limitation of liability.

Mr. Roe, you don't think any of it really meets your concerns at all.

Mr. **Roe**. If you're asking us for our ultimate preference, I don't want to state that at this time because there are other bills that may be introduced, both in this house and the other house, but among those that we've seen so far, the Stafford bill is the approach we would prefer, with the caveat on Federal coverage that I mentioned earlier.

Senator **Breaux**. All right. Mr. Davenport, explain your concerns about the limitation on liability for the waste program. There is pending legislation to remove the restrictions on the Waste Fund's liability limits, isn't there?

Mr. **Davenport**. The Stafford bill does the right thing in removing the limitation on liability and assigning the first $7 billion of that potential cost to the Waste Fund. We would support that. The Moynihan bill does the same thing, but it assigns the complete cost, above $7 billion, to the Waste Fund. We have no opposition to that, but perhaps the Stafford proposal is a little more reasonable, a little more reasonable demand on the industry.

Now, the point I was raising has to do with the Federal Government's own responsibility. The Price-Anderson Act today, either in its current form or as it would be amended by the Stafford bill, does not make clear that the Federal Government would be liable in the event that there is an accident in the waste program which was not caused by a contractor, but which was caused by decisions of the Department which were incorrect, which turned out to be wrong. Now, that claim, if a State wanted to make a claim for, let's say, environmental cleanup, would have to be made against the Federal Government under the Federal Tort Claims Act, which would leave the Federal Government in the position of asserting the defense of sovereign immunity.

Senator **Breaux**. So the only remedy for DOE's mishandling of waste that they have taken into a permanent repository would be to go to the Federal Tort Claims Act?

Mr. **Davenport**. Well, it would be to go through the Price-Anderson Act to collect against the contractors, paid for by the Federal Government, or through the Federal Tort Claims Act to assert the liability of the Federal Government. The Justice Department is certainly going to interpose sovereign immunity. I would if I were in the Justice Department, and under the current law of sovereign immunity only in cases where there is no discretion being exercised by the Federal Government may you pierce that defense. So that is the concern which suggests to us that you ought to be considering yet another provision in amending Price-Anderson.

Senator **Breaux**. The Senator from Nevada?

Senator **Reid**. Thank you very much, Mr. Chairman.

Mr. Davenport, your testimony was excellent. I know that Mr. Frishman was with us yesterday in another committee where we were dealing with some of these same problems, and I think we've learned more in this hearing today, quite frankly, than we did in the one yesterday.

But separate and apart from that, there are many examples that we could give how the Federal Government under the present laws, as we see it, could pick the site—for example, Yucca Mountain; they could set off a nuclear explosion five miles from there, and somehow that could damage the 70,000 tons of nuclear waste and damage the environment or whatever else was around there. And under the present law, the contractor hasn't done anything wrong because they built it according to the standards and specifications of the Federal Government.

So I think you have certainly enlightened me, and we'll make sure that we try to encompass this in some future legislation. Express my best wishes to General McKay.

Mr. **Davenport**. Yes, sir.

Senator **Reid**. That's all I have, Mr. Chairman.

Senator **Breaux**. Thank you very much, Senator.

I want to thank the panel. I realize that all of you represent States that obviously have a direct and real concern, and we appreciate your Governors and your States being actively involved in helping us to develop a legislative approach that protects the public interest and the public health and safety. There are a lot of ways to approach this; some stick their heads in the sand and refuse to participate. I'm particularly pleased that all three of your States have sent you as representatives to work with this committee and the Congress to make a program work better than it has in the past and to make sure that we're doing the right thing. So we appreciate your being here.

We have some time problems. We've got about three things that start at 12:00 o'clock, and Senator Mitchell has a markup in a subcommittee in this room that starts at 2:00 o'clock. So this subcommittee will take the last panel, a very important one dealing with utilities and the contractors and the American Nuclear Insurance folks, right after Senator Mitchell finishes. He says it's only going to take him about 15 minutes to mark up the bill; it's non-controversial. So his committee will start at 2:00 in this room, and we will proceed to complete our hearing this afternoon immediately following Senator Mitchell's completion of his markup. Hopefully, it would be about 2:15.

So having said that, the committee will stand in recess until 2:15 approximately.

[Recess.]

Senator **Breaux**. The subcommittee will please come to order.

This afternoon we will take our first panel. The committee is pleased to welcome Ms. Keiki Kehoe, Director, Nuclear Accountability and Insurance Project of the Environmental Policy Institute which, I would note, is neither a utility nor a contractor, although our panel says "utilities and contractors." You're not one of those, are you?

Ms. **Kehoe**. No, I'm not, sir.

Senator **Breaux**. Also, Mr. Steve Griffith, Executive Vice President and General Counsel for Duke Power Electric Company; Mr. M. G. Johnson, Special Counsel for Bechtel Power; Mr. Omer Brown, Attorney at Law here in Washington. Gentlemen and ladies, we welcome you and are pleased to receive your testimony.

Ms. Kehoe, we have you listed first, if you would like to go ahead and start.

STATEMENT OF KEIKI KEHOE, DIRECTOR, NUCLEAR ACCOUNTABILITY AND INSURANCE PROJECT, ENVIRONMENTAL POLICY INSTITUTE, ACCOMPANIED BY KATHLEEN WELCH, U.S. PUBLIC INTEREST RESEARCH GROUP

Ms. **Kehoe**. Thank you, Mr. Chairman. I am Keiki Kehoe and I'm here on behalf of nine national environmental and consumer organizations. Accompanying me today is Ms. Kathleen Welch, and we'd like to thank you for the opportunity to present our views on Price-Anderson today. We had the opportunity to testify before this committee last year on this issue, and we welcome you as the new chairman of the subcommittee.

Essentially, when this committee looks at the Price-Anderson legislation, we believe that there are two fundamental questions that the committee members should be asking. The first is, how can we make sure that those who are responsible for safety decisions throughout the nuclear industry are giving compelling incentives to stay awake on the job and to avoid careless mistakes?

The second question you should be asking is, how can we structure a compensation program that provides both an ongoing source of funds and also protects taxpayers from becoming the ultimate insurers for this private industry?

We believe that both of these goals can and should be met through Price-Anderson legislation. The proposals that we were asked to comment on today, S. 44, S. 843 and Amendment 3238, none of those three proposals meet both the goals of compensation and accountability. On the question of compensation we believe that they rank in the order that I just read them: S. 44 is the best; next would come S. 843, and Amendment 3238 would be last on the issue of compensation.

We really wanted to talk briefly here—and we've got a complete statement for the record—on those two questions, compensation and accountability. On the question of compensation, the bottom line is simply this: that if there is an accident, the money is going to have to come from somewhere. It's going to come out of somebody's pocket, and we see only three places. It can either come out of the victims' pockets, the taxpayers' pockets, or the industry's pockets. And of those three choices, we think the most logical and the most appropriate is the industry. For that reason we support S. 44, as we support the 1983 recommendations of the Nuclear Regulatory Commission and H.R. 2141. We believe it is appropriate and responsible.

The second big issue is accountability. By that, the issue is simply this: under the bills before this committee you have a system whereby the victims, obviously the public, is in a position of being exposed to some financial risks in the event of a nuclear accident. And in fact, the utilities under all these bills are exposed to some financial risk in the event of a nuclear accident, as are taxpayers in the event of certain nuclear accidents.

There's a whole set of players who are completely and totally exempt from this system. They are missing and removed from the system, and that's this group that we've sort of lumped together, calling them "nuclear contractors." That's the companies that design the plants, build the plants, that supply parts for the plants, and it's also all of the Federal contractors that do nuclear work for the Department of Energy. Those companies are totally exempt from any liability for damages to the public, even in the event that they cause an accident through gross negligence or intentional misconduct. We don't believe that this is good public policy. We heard the Undersecretary this morning talking about how there really was no need for civil penalties or any kind of penalty system to ensure safety at DOE's operations, and we frankly disagree with him. We think there is a dramatic need, a drastic need for strong incentives for safety at these facilities.

We are also pleased to hear you, Mr. Chairman, referring to the Department of Defense's and Department of Justice's comments on indemnification and the safety link. We think that there is a very strong link between someone's financial exposure if they cause an accident and their conduct, their safety performance, and we think that that's a link that should not be dismissed. For that reason it's very important for Price-Anderson renewal to contain an accountability feature, because what we really want to do here is to create a system that discourages an accident from happening in the first place, that maybe we can avoid having to go through this compensation system because the incentives will be such that there won't be careless mistakes.

Finally, we think that as you look at Price-Anderson, one of the biggest problems that this committee, and in fact the Congress, is going to be dealing with is the whole question of high-level nuclear waste and how we can build a program that is both credible and successful. I think that one of the absolutely fundamental components of a credible and successful high-level nuclear waste program in this country is going to be contractor accountability and DOE accountability, and that if we are in a position right now of renewing Price-Anderson and reviewing its features, then it's important that we not pass a law that says, if you're the company that's hired to ship nuclear waste from Maine to Washington State or Maine to Nevada or whatever, that even if you violate all the Federal regulations, you have no financial exposure. We don't think that's good public policy and we strongly urge you to consider S. 44 for the compensation provisions, and a model along the lines of H.R. 2141, which we expect will be introduced in the Senate soon.

Thank you.

Senator **Breaux**. Thank you very much.

We will now take Mr. Griffith's statement. Mr. Griffith.

STATEMENT OF STEVE GRIFFITH, EXECUTIVE VICE PRESIDENT AND GENERAL COUNSEL, DUKE POWER ELECTRIC CO., REPRESENTING THE AMERICAN NUCLEAR ENERGY COUNCIL AND THE EDISON ELECTRIC INSTITUTE

Mr. GRIFFITH. Thank you, Mr. Chairman. My name is Steve Griffith. I'm Senior Vice President and General Counsel of Duke Power. My statement is made on behalf of the American Nuclear Energy Council and the Edison Electric Institute.

Mr. Chairman, we support Amendment 3238, but not without a great deal of reluctance. We do not support S. 44 and we do not support S. 843. S. 843 provides for a third tier of funds that either comes as a result of an unlimited liability imposed upon the nuclear utilities, or unlimited governmental liability, or a combination of both. It further provides for the costs for plaintiffs' attorneys but does not provide for the costs of investigation and defense against frivolous or unwarranted claims.

Third, it is not a compromise, as suggested by Commissioner Asselstine, but is an upward movement in the negotiations leading to the renewal of the Price-Anderson Act.

We should understand today how we got to this place. In 1955, the Congress wanted nuclear power to be developed by private electric utilities. The electric utilities were ready to do that and testified that they were, but the manufacturers and the suppliers were not willing to go forward, so that Price-Anderson resulted.

As Price-Anderson was renewed over the years, in 1975 the additional renewal provided for the liability of an entire industry for that of one company, a rather historic precedent. Price-Anderson has been successful for 40 years. As Professor Arthur Murphy of Columbia University Law School testified before the Senate Energy Committee about six weeks ago, he said, "Probably no act has cost the Government so little and has accomplished the governmental objectives as has the Price-Anderson Act."

Mr. Chairman, I was gratified to hear the comments of Senator Mitchell, with Senator Simpson, that the compromise reached between the Senate Environment Committee and the Senate Energy Committee of last year was a good one, and that that ground would not have to be replowed. Our industry, the industry that I represent, has come a long way in accepting that compromise, and I urge the Senate to be reasonable in providing for the renewal of Price-Anderson.

Thank you, Mr. Chairman.

Senator BREAUX. Thank you, Mr. Griffith.

Let's hear Mr. Johnson now.

STATEMENT OF M.G. JOHNSON, SPECIAL COUNSEL, BECHTEL POWER CORP., REPRESENTING THE AMERICAN NUCLEAR ENERGY COUNCIL

Mr. JOHNSON. Thank you, Mr. Chairman. I am M.G. Johnson, Special Counsel, Bechtel Power Corporation, appearing here today and testifying on behalf of the American Nuclear Energy Council with respect only to the Government contractor side of the Price-Anderson debate. I think it's important to keep that in mind because there are different principles that apply to the two aspects, the section 170(c) and the 170(d) aspects of Price-Anderson.

I think also I should mention at the outset something that has been pretty well ignored in this hearing and in most of the other hearings, and that is that when we're talking about Government contractors, the handful of major contractors who operate or who design and build these DOE facilities make up only a minuscule portion of the contractors who are affected by Price-Anderson. In testimony last year, Acting Assistant Secretary/Nuclear, Mr. Vaughn, for the Department of Energy, testified that in the 30 years since 1957 some 78,000 or 79,000 suppliers have been covered by Price-Anderson. We have got to keep in mind here that what we are doing is going to affect, by far, a greater quantity of businesses who are suppliers to this industry, not the giants of industry, not the major contractors who design, build and operate these facilities; that for many of them, their Government nuclear business represents only an infinitesimal percentage of their total business. And I think it's reasonable to suspect that any treatment by the Congress which would put those people in jeopardy is going to lead them to decide that they can better direct their business in other directions.

So with that and my prepared testimony, which I assume will be made a part of the record, I would like to briefly recite the principal points that the contractors are interested in seeing in whatever legislation is enacted, and they're fairly simple.

First, we want an indemnity that is coexistent with the liability, that any damages excluded from the indemnity should be excluded likewise from the liability. For example, if, Mr. Chairman, the indemnity should not cover punitive damages, then claimants should not be allowed to recover punitive damages.

Defense costs must be included in the indemnity or the whole purpose of the act as far as contractor protection is concerned is totally thwarted. And again, remember that it has been stated here that there really are two principal purposes of Price-Anderson, one being victim compensation and the other being the inducement of private business to participate in the nuclear program. Anything which removes or lessens that inducement to private business to participate in the program is running contrary to the principles of Price-Anderson and is going to make it very difficult, if not impossible, for the Department of Energy to continue operations. It is possible that DOE could substitute for the major contractors the operating personnel, for example, at these sites. There is no way under the sun that the Department of Energy could get set up to build the widgets and whatever that are the components that go into these plants. It just would be a physical impossibility.

Second point, the indemnity payments should be the sole source of the claimants' recovery; otherwise, contractors are exposed to potential bankruptcy if they are forced to defend these cases then pay the judgment before recovering from the Government which, again, could take two or three years. Again, remembering that so many of these contractors are small businesses—even the large businesses would have difficulty paying for the defense costs you get in a major lawsuit—we should have language which does provide that the sole source of recovery for claimants is the indemnity payments.

Also, the indemnity should be made mandatory. It is on the licensee side, under 170(c). The indemnity is mandatory. The NRC is required to provide the indemnity. It is discretionary on the Government contractors' side, and in cases in the past in recent years, the Department of Energy has refused to exercise its discretion to grant indemnity in some cases. This, of course, violates the concept that victim compensation should be assured. Victim compensation will be assured only if the indemnity is granted, and we see no reason why it should not be made mandatory.

For the same reason, the victim compensation problem, in the event that the limit on liability of the Government contractor is increased, which apparently is going to be the case, it is imperative that the indemnity—the new higher indemnity—be given retroactive effect. For 30 years contractors have been entering into contracts with the DOE and its predecessors with both the Government and the contractors assuming that there is no financial risk to the contractor arising out of nuclear risks and hazards. If the limit on liability is now increased, those contractors that have in good faith dealt with the Government for the past 30 years are going to have been sold down the river, and I think simple justice requires that the Congress specifically make the indemnity retroactive. I think it should be done automatically to avoid the incredible administrative problems involved in going back and opening up contracts let by the Atomic Energy Commission, by ERDA and by DOE over the past 30 years.

My last point really is partially in response to Ms. Kehoe's question, this question of incentives required to have the nuclear business operate safely. I take it that is the thrust of a portion of her argument, at least, the argument that parties exempt from liability, even in the event of their gross negligence or willful misconduct, are more likely to be the cause of nuclear incidents.

There is no question whatsoever in my mind but what in every jurisdiction in the United States, that anyone who through gross negligence or willful misconduct causes deaths and substantial property damage is not going to be exempt from criminal prosecution, from felony prosecution, if you will. And I think a little reflection will satisfy anyone that the threat of criminal prosecution, of imprisonment and fines is far greater than any civil penalties or subrogation rights that could be imposed in connection with Price-Anderson.

Therefore I maintain that as the Department of Energy has testified that there is no need for any of these punitive measures, there already exists adequate protection under the law in the form of criminal penalties for willful misconduct and gross negligence resulting in death and property damage, and that the Congress should certainly not bring those matters into the Price-Anderson Act in the future.

I thank you.

Senator **Breaux**. Thank you, Mr. Johnson.

Mr. Brown.

STATEMENT OF OMER F. BROWN II, ATTORNEY AT LAW, RIVKIN, RADLER, DUNNE & BAYH, WASHINGTON, DC

Mr. BROWN. Mr. Chairman, my name is Omer Brown. I'm a partner in the Washington office of Rivkin, Radler, Dunne & Bayh, legal counsel to the Energy Contractors Price-Anderson Group. We appreciate this opportunity to testify before your subcommittee and the fact that you've scheduled this hearing about extension of the Price-Anderson Act.

We realize that this committee is concerned mostly with nuclear liability coverage for licensed facilities. However, we would like to emphasize the fact that the expiration date for new authority, which is now only about 90 days away, is of more immediate concern with respect to Department of Energy contractor coverage. Thus we'd like to make the point again that time is of the essence for Congress to act.

Since there is no alternative commercial insurance available to Energy Department contractors for these nuclear hazards, a point that makes some of the discussion this morning somewhat academic, we would submit that expiration of Price-Anderson authority would violate the dual purposes of both the Price-Anderson Act and the Atomic Energy Act. That is, an expiration would diminish public protection and would discourage private sector participation, including especially subcontractors and supplies, many of which are small businesses around the country, as Mr. Johnston has pointed out.

We submit that any extension of Price-Anderson should recognize the fundamental cornerstones of the system that has existed for almost 30 years, and these are that liability coverage should be co-extensive with the limitation on liability. The fundamental economic channeling omnibus feature whereby anyone liable is covered should be preserved. Also, the waivers of defenses in the event of an extraordinary nuclear occurrence should be preserved. And finally, the coverage for costs of investigating, settling and defending claims, which is fundamental in all insurance coverage, should also be preserved.

We would caution this committee about amendments that have been proposed elsewhere that would destroy the fundamental cornerstones of the system. Here we're talking about some of the amendments that Dr. Rossin referred to this morning in the areas of subrogation, civil penalties for Energy Department contractors, and elimination of the omnibus legal defense cost coverage provisions in the existing system.

As Dr. Rossin said, this is a system that isn't broken; it shouldn't be broken now. And I would point out that in the almost 30 years that Price-Anderson has been in existence, that the Federal Government has paid approximately $1.5 million in nuclear claims, so there is no evidence that there is a need for greater coverage for civil penalties or any of the other things that we've heard talked about here today.

I'd be happy to try to answer any questions that you may have. Thank you, Mr. Chairman.

Senator BREAUX. Thank you, Mr. Brown, and thank all the panel members.

I know I got testimony from everybody except you, Mr. Brown. Did we get your testimony?

Mr. BROWN. We submitted a written statement yesterday. I can give you another copy of it.

Senator BREAUX. That's all right. I didn't have the copies of it, and the staff tells me they didn't receive it either. (See p. 248.)

Mr. Johnson, I have a problem with what I perceive to be a different treatment of contractors who do work for the Government versus contractors who do work for the commercial/private sector with regard to liability. When you do work for the Government, I understand the situation is that you are indemnified from any liability. DOE, in essence, eats it if there's a mistake made by you.

In addition to a mistake that causes an accident that comes from "normal negligence," you are also restricted from being charged or held liable for any negligence that would even be caused by your willful or gross negligence. I don't know of any other area in the Government that would do that. We have testimony from the Justice Department, the Defense Department that all seems to indicate that with that type of indemnification you don't really have an incentive to make sure that the work is being done without negligence. You point out the criminal laws are a real encouragement to do it properly, but I don't remember putting a lot of people in jail for negligence. I'd like you to try to justify to this committee, why do we treat contractors that work for DOE on nuclear installations different from the same contractors when you do work on a commercial site?

Mr. JOHNSON. Senator, I'm very glad that question was asked because I think there's been an awful lot of very casual and loose talk on this subject. Not intentionally so, but it's a very complex subject, and I think there is a lot of misunderstanding as to it.

First let me correct one misapprehension. All DOD contractors do not get that kind of indemnity protection from DOD. It is only the cost-reimbursable contractors, as a practical matter, that get that, and that is a small percentage of the total DOD——

Senator BREAUX. Even if it is only for one plant; the principle is what I'm after. Why, if it's just for one plant—I realize it's only for the profit-oriented companies that that would be available for, but why is it correct for anything?

Mr. JOHNSON. Well, one of the mistakes that has been made in some of the testimony, although I don't believe in this hearing, was the idea that the contractors are totally free from liability, even in the event of their gross negligence or willful misconduct. They are not with respect to damage to Government property under the DOD side of the house.

Senator BREAUX. While we're on that point, how can we justify you being responsible for damaging property but not for perhaps damaging people and lives?

Mr. JOHNSON. Well, all right, that's what I was going to get to next. When DOD does that it is, in effect, a substitute for the insurance that the contractor would otherwise carry, that DOD would have to be reimbursing, either as reimbursable cost in a recoverable cost contract or in the contract price in a lump sum contract; obviously the contractor has to recover the costs of his insurance.

The Department of Defense has concluded that it is cheaper for the Department of Defense to, in effect, self-insure many of those risks rather than permit the contractor to insure it with commercial insurance and include the cost in his price to the Government. And apparently the DOD has concluded over the years that that is profitable. But again, they don't give that broad protection to just everybody. It is only when it is recognized that there are risks out there that perhaps are sufficiently uncertain that an insurance underwriter is very likely to overprice the risk in terms of DOD's views.

Now, another fundamental distinction which has been mentioned is that the DOD contractor still has an ability to protect himself by conventional liability insurance to some extent. The DOE nuclear contractor does not have that ability because every liability insurance policy written in the United States—if you'll look at your own homeowner's policy you will find this—has a nuclear exclusion in it. Therefore, the DOE contractor is totally dependent on the Department of Energy and the Price-Anderson indemnity for his, if you will, "insurance protection."

Now, insurance policies do not exclude coverage for the gross negligence or the willful misconduct of the insured. Now, admittedly, if recovery is had, that insurer is going to chop that insured off rather quickly. But public policy in most States prohibits the insurer from putting in those kinds of provisions which would say, "this policy will not cover in the event of gross negligence or willful misconduct."

Senator Breaux. Okay, let me get back. Bechtel does work for commercial utility companies and you do work for the Department of Defense.

Mr. Johnson. Right.

Senator Breaux. I take it when the utility company hires Bechtel and the utility company knows that they're going to have to pay a premium for any contractor negligence that causes an accident, that's taken into consideration in their fee that they pay a contractor because they know that they are paying the premium that ordinarily you, perhaps, would have to carry. Are you able to pass those savings when you don't have to be responsible for a premium when you do work for the Federal Government and DOD on to a savings to the Federal Government? Are you doing work for the Government at the same plant at a lower cost than you would for a commercial utility company?

Mr. Johnson. Well, certainly, if the contract is on a cost-reimbursable basis, that's going to be the effect. There is one recoverable cost that will not be in the picture.

Senator Breaux. So the work that you do for the Government, if we looked at the prices, would be substantially less, reflecting that you don't pay a premium when you do work for the Government?

Mr. Johnson. Well, it would be substantially cheaper to the extent the insurance component would be less. But remember, the insurance component of a typical construction only contract is someplace in the neighborhood of 2 or 3 percent of the total contract price at most. And that depends a little bit on which of a variety of insurances are furnished by various parties.

But there is another important factor there. When we do work for commercial organizations, typically we and the industry have a much larger data base of past experience. We know what to expect. We know what this facility is that we are working on. Nothing is concealed from us. Nothing is hidden from us.

Unfortunately, in Department of Energy nuclear work, so much of that is Defense——

Senator **Breaux**. Please don't tell me that you don't know what you're doing when you——

Mr. **Johnson**. No, no. We know what we are doing in very small——

Senator **Breaux**. Are they hiding information that you need to build that plant properly and correctly?

Mr. **Johnson**. No. What is concealed, however, and necessarily so for security reasons, is the information concerning that facility which is not necessary for us to do our work, as far as DOE is concerned.

Senator **Breaux**. Then it shouldn't affect the cost.

Mr. **Johnson**. The point is, we do not know the interrelationship, necessarily, of what we are doing on a job. This is particularly true of a supplier. He is selling—let's say he's selling aluminum wire or a motor to a Government nuclear powerplant. The specification he gets is probably going to be a performance-type spec. It's going to say it's got to do this and that and the other thing. He sells it. He does not have any way of knowing what the consequences are if there is some failure of that product that he delivers to comply with those specs. And compliance with specifications is very frequently not all that objective and clear.

Senator **Breaux**. I find it amazing that a contractor who is willfully and grossly negligent is not responsible. We wrote the Superfund legislation last year. It clearly indemnified contractors for cleaning up these toxic sites for all of their negligence, but it certainly didn't say for their willful or gross negligence. How do we justify that, as a policy decision, to say that we're going to have the American taxpayer eat the costs of a mistake caused by a contractor's willful negligence or gross negligence, the highest standard of negligence?

Mr. **Johnson**. All right. My problem with that is not the idea of being responsible in the event of gross negligence or willful misconduct. I accept that as something that a contractor should accept.

Senator **Breaux**. That's not what the law says. You're still indemnified, even for gross and willful negligence.

Mr. **Johnson**. But let me finish. My concern is, I have absolutely no trust in the tort system of the United States of America to come out with an accurate, honest conclusion on this point. I think it is very clear, whether you like it or not, we have gotten into an era of economic jurisprudence, sociological jurisprudence, where the determination that a defendant was guilty of gross negligence or willful misconduct is dependent more on the depth of that defendant's pockets than it is on the truth——

Senator **Breaux**. But, Mr. Johnson, that's the law of the land. We can come to the Congress and ask that we change the tort liability system, but as long as this is the tort system that we operate under in this country that allows a jury or a judge to find gross or willful negligence, that's the law.

My question to you is, assuming that is the law, why should we as a Nation indemnify your company, or any company, for gross negligence or willful misconduct? This is something that someone would say, "this company willfully"—not Bechtel, but any company—"did something that they knew shouldn't have been done; they did it anyway, but we're going to look the other way and we're going to pay for it, pay for injuries or damages or anything that results."

How do we justify that as a policy other than saying, I don't like somebody finding us grossly negligent? That's what you're saying.

Mr. JOHNSON. No, I think there's a much more mundane answer to that, and that is that Price-Anderson is the only substitute for insurance, for liability insurance, for the contractor. For all of the other risks the contractor has, the risks of causing personal injury, death and property damage, he can procure insurance which does not have an exclusion relating directly to those activities. In the nuclear field, there is no coverage for that contractor. He cannot get it.

Senator BREAUX. What would your reaction be if we set up your contractor liability system the same way with your DOD and DOE contracts as we do for the utilities with commercial reactors, i.e., pay a premium, charge you something every year?

Mr. JOHNSON. Well, I certainly would think that experience would indicate that that would be horribly bad judgment. DOE has paid something less than $1.5 million over 30 years, less than $50,000 a year, on account of claims on these jobs. In fact, a year ago they were using a number of about $270,000 over that period for the Price-Anderson type claim. Now, if you assume that each contractor is going to be paying a premium of, say, $20 a year for this coverage which ultimately is going to be recovered from the Government—and DOE has testified that some 78,000 or 79,000 contractors have been covered by it—all of a sudden it doesn't become economically sound for the Government to try to have that covered by commercial insurance. Right there, just $20 per contractor per year, you're up over the amount that DOE has paid out on account of these provisions.

Senator BREAUX. Well, for the life of me I just cannot understand the differentiation that we have between folks who build facilities for our Government as opposed to folks who build facilities for the commercial sector. I think we treat the two entirely different, and we let contractors get by even if they are shown to be grossly and willfully negligent.

Mr. JOHNSON. No, when we build nuclear powerplants for Duke Power Company or other utilities we have that same kind of protection——

Senator BREAUX. Oh, but, Mr. Johnson, you don't think that Duke Power considers that they're paying the premium for your work when they tell you how much they're going to pay you to build a powerplant for them?

Mr. JOHNSON. Oh, yes. As a matter of fact, they know very, very well, as far as the nuclear liability insurance coverage, that they are paying it because that's a bill they pay every year regardless of whether they've got a contractor out there or not.

Senator **Breaux**. Well, what I'm saying is that when they tell Bechtel how much they're going to pay you to build a plant, they're considering in that price they're paying you the fact that they're paying an insurance premium that's going to cover your work while the plant is being built.

Mr. **Johnson**. No, only the nuclear liability aspect typically, and they probably don't because it's going to be the same cost whether it's Bechtel or somebody else that they retain. So they have no reason to throw that in for comparison purposes. It's not going to change any comparison. But they are going to be paying a premium for the American Nuclear Insurers, $160 million of nuclear liability insurance, which will cover even in the event of gross negligence or willful misconduct.

Senator **Breaux**. Mr. Griffith and Ms. Kehoe, in your testimony you both seem to show a different understanding about the third tier of compensation that's set forth in Senator Stafford's bill, S. 843. It seems to me, at least, that you characterized the provisions differently, and, Ms. Kehoe, it seems that you're suggesting that the bill is more like the limited liability provisions contained in Amendment 3238 from the last Congress.

Mr. Griffith, it seems that when you were talking about the bill you were suggesting that it is more like the unlimited liability provisions of S. 44.

Can I ask each of you to elaborate on this third tier of compensation contained in the bill?

Mr. **Griffith**. All right. On page 9 of my prepared testimony I discussed the reports in the Congressional Record, "There would be no limit on aggregate public liability," which comes from the Congressional Record of March 25, 1987. And then I quote further:

> Congress could impose additional retrospective payments on utilities. It could impose fees on electricity produced by nuclear power or by other fuels, or the Congress could simply use general tax revenues."

I think that fully substantiates what I have said about this bill.

Senator **Breaux**. Well, the point I'm making, couldn't Congress also do that under Amendment 3238?

Mr. **Griffith**. Yes, sir. But what happens is, if you have such an accident that would require the full retrospective premium, that would be a finite amount of money before the Federal Court. And under the Price-Anderson Act the Federal judge could set aside a certain percentage of that money for immediate payment for those who needed emergency relief, for those who needed transportation, who needed lodging, whatever. He could also set aside sums of money for latent injuries. But he will be dealing with a fixed amount of money. When you add this third tier, you are creating a bonanza for those plaintiffs who get to the juries first.

Now, if you look at what happened at Chernobyl, the injuries that were caused were the firefighters and those who were employees of the plant. The people who surrounded the plant—I'm sorry, I have difficulty talking when someone else is.

Senator **Breaux**. That's the problems of the Senate. Go ahead. I'm listening.

Mr. GRIFFITH. The people around the plant were removed from the plant, so that in all probability what you have is a dislocation cost. Now, if the Russians had the Price-Anderson system, then a plaintiff could bring a lawsuit which would be in the Federal court and would be under the Russian tort law, and let's assume like it's like ours. They had a home and a piece of property there which they will never be able to return to. That plaintiff could claim that the property was worth $100,000, but because the operators made so many bad mistakes—and if you read the scenario of Chernobyl, one mistake after another; you could call them willful, if you wanted to—then that plaintiff is entitled to $10 million punitive damage, and the jury could give it. And the next one would be just the same, and so forth and so on. And the arguments to the jury on behalf of the plaintiffs' lawyers would be that there is an unlimited amount of money out there. And I suspect that at least one-third of that money is going to the legal profession that's representing those plaintiffs.

Under Senator Stafford's bill you would probably get more money to the claimants rather than to the lawyers if you took that money and put it in an airplane and flew out over the area that was covered and just threw the money out of the plane, because the lawyers represent a very insignificant number of the population. Therefore, by mathematics, they would get less money.

That's the type of thing that I think you have before you. This unlimited liability with the tort system at work, and who gets there first, and who gets the best lawyer, and who gets the best jury, is going to get the most money. And that's got nothing to do with, really, full compensation, in my view.

Senator BREAUX. Ms. Kehoe?

Ms. KEHOE. Thank you, Mr. Chairman.

As we differed in our analysis of the Stafford bill, I guess we also differ in this "rush to the courthouse" syndrome. I think that—I'd like to make two points, and the first one is just that when you have a system where you've said, we have $7 billion available and then we have to figure out where the rest is going to come from and when it gets there and all of that, I think that's the situation at which point you're going to have the "rush to the courthouse" syndrome, he who gets there first with the best lawyer, because nobody knows when the money is going to run out. Nobody knows whether there's going to be money beyond that. Nobody knows anything in that regard. So I think that we both see the same thing happening from different triggers.

But our basic feeling about this, the difference between Amendment 3238 and S. 843 and more unlimited systems, such as S. 44, all hinges on this magical Congressional action. What is the trigger for compensation beyond the limit? Well, S. 843 clearly has a much stronger promise language, assurance that victims would be compensated, and we see the intent behind that. Senator Stafford pointed out in his opening statement when he introduced this bill that it provides a stronger guarantee that victims would be compensated, and we agree. It's a stronger guarantee. At the same time, it's not absolute by any means.

What we are concerned about is that the difference between that approach and an approach such as S. 44 all hinges on somebody waiting for Congress to have the compensation. It's either that the victims are going to sit there, waiting for Congress to come forward with compensation beyond the cap, or the industry is going to be sitting there waiting for Congress and S. 44 to come forward and stop it if the system gets out of control.

We think what's important is having a system that moves forward so that if Congress stalemates, then victims would continue to be compensated, that they're not dependent upon a situation that is vulnerable to a Congressional stalemate.

Senator BREAUX. As has been said in this morning's hearing, in the event of an accident that goes beyond funds that are in a pot, so to speak, Congress is going to have a tremendous amount of pressure to see to it that the folks are adequately compensated, either with S. 44 or S. 843 in law. With or without those pieces of legislation, Congress is going to be faced with a tremendous amount of pressure to see that everybody is adequately compensated, whether it's out of the Treasury or whether it's going after the contractors or the companies or whoever is going to have to pay, there's going to be a lot of pressure to do that with or without this legislation.

Mr. Griffith, I think there's still a difference between the way you interpret S. 843 and the way Ms. Kehoe does. I guess that it establishes a liability. Does it speak, in your opinion, to who has to pay it?

Mr. GRIFFITH. It's unclear. If it is unlimited Government liability, then I think that's bad public policy. If it is a combination of unlimited Government liability and liability of the nuclear utility industry, then that should be spelled out. We should know what we're getting, otherwise we're buying a pig in a poke. But when you talk about dealing with $6 billion, and that's a lot of money even in today's inflated economy, that is a very difficult job to do, to deal that money out correctly. And I think that if you really analyze the situation, that the Congress would be so much better served and the American public would be so much better served if you have a finite amount of money and then, when we know the extent of the accident and the damages that have resulted from that—and under the amendment that was agreed to between these two committees last year, a Presidential commission would be appointed and would report to Congress immediately. It may be that a workers' compensation plan would be the final result of something like that, but something of that nature would have to take place. You could not have the trials. Every lawyer would want to go to trial that represented a plaintiff.

Senator BREAUX. Ms. Kehoe, let me ask you, isn't there some legitimate argument on the part of the industry when they say, look, we're willing to buy the maximum insurance that's available; in addition to that, we're willing to make contributions to a pot that would be used to compensate victims, whether it's our plant that goes wrong or whether it is our work that causes the accident, but we're willing to make that extra contribution in order to establish a pot of money to protect the public even against actions of negligence of others that we have nothing to do with. An example is a plant in California contributing to a pot of money annually that, perhaps, would be used to pay for the negligence of a plant on the

East Coast. Doesn't that company have a legitimate right to expect that in order to give that up, there would be some kind of a cap or some kind of a limitation? They're willing to contribute for someone else's negligence, but, by God, they need to know that there's going to be a limit to what they're exposed to.

Ms. KEHOE. I think there is some legitimacy to that argument, and it goes back to—the only answer I can give to that is that it goes back to the basic question of, okay, when their liability stops, then whose responsibility is it? And yes, it would be ideal to have your exposure end at point X that you can see today, but at the same time it goes back to the fact that there can only be three places that money can come from. If $7 billion isn't enough, where are you going to get the rest? And what we see Congress deciding if it approves a bill like 3238 is they're saying, $7 billion or $6 billion is what we're going to get out of the industry, and after that, well, it's going to be taxpayers, or after that the victims will be partially compensated. And it's a matter of there only being those three pockets—victims, taxpayers or the industry. And going again to the point that you made after the last round of questions, yes, I think Congress is going to be compelled to do something, and there's going to be enormous pressure. At the same time, there's going to be a lot of tugging and a lot of counterpressures. And what we're going to find is that Congress is going to have a very difficult time deciding who is going to pay that extra amount of money.

The thought I'd like to leave you with is that if Congress can't decide today, before the accident happens, where that money should come from—if we can't decide now while we don't have an accident to deal with where the burden should lie, then how are we going to decide that after it's happened when you've got this chaos, and two Senators are from the State where the accident happened, and you've got all this tugging and pulling? We just think it's good public policy to decide now, "here is where the burden will lay."

Senator BREAUX. I tend to disagree with your observation of the choices of whether we're going to make the company pay that extra amount or whether we're going to have the taxpayer. Assume we give it all to the utility. Who's going to pay that, the utility or the people who buy the power from them? It's going to be fixed into their rate base. It's going to be part of the cost of doing business. It ultimately gets back to—guess who? The users, the general public. Whether it's the Government passing it as a bill to say that we're going to compensate everybody in addition to the limits, or whether we're going to say it's the utility companies or what have you, ultimately aren't the same people paying?

Ms. KEHOE. It is and it isn't. It's definitely the same people. I think that the rate treatment of this is clearly something that would be up to individual utility commissions. At the same time, if it is passed into the rate base, we do have charts in our testimony showing how minuscule it is. At the same time, I think that anybody would be hard-pressed to argue that that's not a cost of nuclear power.

Senator BREAUX. I don't want to be argumentative; that's not the point of the hearing, but I would make a legitimate point that the utility users of a plant that's being run safely for the negligence of a plant that they don't do business with in another part of the country, the way it would be set up from your recommendations.

Ms. KEHOE. That's correct, and I guess that's just one of the faults of us not being able to find any perfect solution. I think it comes closer than the other proposals to being a sound solution.

Senator BREAUX. Well, I think the panel has been good and helpful in providing information. One thing is clear, that we have to do something. We have to reauthorize it. We have 109 nuclear power reactors that are working and we have to come up with some system that's going to protect the public, and we're going to have to do it with some compromises, which hopefully we'll get to.

We obviously may have some other questions that other Members will want to submit. We appreciate your attendance and thank you for your help.

I'd like to welcome up at this time our final witness, Mr. Joseph Marrone, Vice President and General Counsel for American Nuclear Insurers, Farmington, Connecticut. We are pleased to have you here and look forward to your testimony.

STATEMENT OF JOSEPH MARRONE, SENIOR VICE PRESIDENT AND GENERAL COUNSEL, AMERICAN NUCLEAR INSURERS, REPRESENTING MUTUAL ATOMIC ENERGY LIABILITY UNDERWRITERS, NATIONAL ASSOCIATION OF INDEPENDENT INSURERS, ALLIANCE OF AMERICAN INSURERS, AND AMERICAN INSURANCE ASSOCIATION, ACCOMPANIED BY MARGUERITE SHEA, ASSISTANT MANAGER, MUTUAL ATOMIC ENERGY LIABILITY UNDERWRITERS, CHICAGO, IL

Mr. MARRONE. My name is Joseph Marrone. I am General Counsel and Senior Vice President of American Nuclear Insurers. I am here today on behalf of American Nuclear Insurers and Mutual Atomic Energy Liability Underwriters, the two nuclear insurance pools that have provided insurance to the nuclear industry since 1957.

With me is Marguerite Shea of Mutual Atomic Energy Liability Underwriters. Our statement is submitted for the record, and there are three insurance associations with over 800 members who support the statement that we have submitted.

The nuclear insurance pools have succeeded since 1957 in providing nuclear insurance to the nuclear industry, both property and liability insurance, despite it being a novel exposure with catastrophe potential, very small spread of risks, small premium volume, and despite suffering a major financial reverse and a financial loss in 1979 with respect to Three Mile Island. That success came with a good deal of support from foreign reinsurers overseas, who make up slightly more than half of our insurance capacity.

The success that we have had is perhaps all the more noteworthy in that when compared to other areas of liability insurance which don't have near the difficulty that we encounter in the nuclear area, the nuclear insurance pools have been able to provide this insurance with a great deal of stability with respect to both the cost of the insurance and the availability of the insurance. We feel that that success of ours is perhaps less a reflection of the efforts of our members and foreign reinsurers than it is a reflection of the essential elements of Price-Anderson, which we feel must be kept intact if the insurance industry is going to be able to continue to provide this coverage.

The interest of the insurers is to insure an industry that is financially sound because we think that financial stability means a safer operation. And as administrators of the financial protection program, we want to be certain that it will function as intended if it's ever called upon to operate, which would be a time of great stress should that catastrophic accident occur.

The principal objective of Price-Anderson is not to identify who is at fault or to punish or to regulate to make nuclear power more safe. The idea—and this should be almost the sole idea—is to line up the funds and the obligations to pay for the consequences of a very remote event, and to distribute the costs in a reasonable manner.

How well has this objective been served? The amount of financial protection for the public has substantially increased since 1957 through, in large part, the unique means of combining the resources of insurers and reactor licensees which could not be done without the Price-Anderson law.

As I noted, severe fluctuations in the availability and cost of insurance in conventional insurance markets have not taken place in the nuclear area, so instead of being concerned about insurance not being available or with the cost for what is available being too high, House and Senate committees dealing with Price-Anderson are engaged in determining how to reasonably increase what is already a very large amount of private protection. This happy circumstance is no accident, but rather the consequence of the structure of Price-Anderson, which is integral to the Price-Anderson law.

These critical elements have been recounted before, but very quickly, the economic consequences of the accident must be channeled to the financial protection provided by the licensee for the benefit of all parties. A limit on liability must apply to persons liable. The assessment liability of licensees should be reasonable and should avoid imposing crippling liabilities if they are called upon to pay. The expense of investigating, evaluating, paying or defending claims is an inescapable cost of the system which must be paid by reactor licensees as part of their retrospective premium, and it must be included in their limit on liability.

Legal defenses are waived in the event of an extraordinary nuclear occurrence, which expedites payments to the public. This is an essential feature of the law. At the same time, traditional defenses for other than extraordinary nuclear events must be retained.

No unique or unusual liability should be added to existing tort liability. For example, consideration had been given to creating liability with respect to harm or damage done by material that might be stolen from a nuclear facility and used three or five or six years later to cause injury to third parties by criminals committing criminal acts. We think that that has no place in Price-Anderson.

It is very important, last but not least, that provision be made for compensating claims beyond the amount of financial protection provided. Of the three legislative proposals that we were asked to consider, we support only Amendment 3238 because that, alone of the three, contains the essential elements of what we consider to be a sound program.

Since it contains the essential elements, the central issues regarding Amendment 3238 would be, first, is the amount of the retrospective premium reasonable? And, second, does the bill provide assurance that after financial protection is exhausted, all valid claims will be compensated as a result of further Congressional action?

First, as to the amount of retoractive premium. The $60 million amount, even spread over five years, is a large sum to be assumed by individual companies in an industry whose members have greatly varying degrees of financial strengths. The total sum called for is extraordinary, $6 billion or $7 billion, which suggests that it is at the outer bounds of what is reasonable in partitioning compensation costs between utilities and their ratepayers on the one hand and other sources of funding.

Payments would be required at a time of exceptional stress for those called upon to pay. There is potential that the system could collapse. There is some protection from that, first, because the insurance pools provide $30 million of guarantees should the utilities fail to pay retro premiums when due. We provide coverage with respect to the first $30 million of defaults. The NRC guarantees defaults beyond this sum. The system, we believe, should function as intended, with fees and other safeguards included in 3238.

As to Congressional action, Amendment 3238 contains explicit provisions for congressional action for payment of claims that exceed the amount of financial protection. The Congress and the Executive Branch of Government will have every incentive to act swiftly and equitably.

For these reasons, and subject to our reservations respecting the amount of the retrospective premium, we support Amendment 3238. We believe that we will be able to continue to operate—that is, provide our capacity for liability insurance, administer the second layer of financial protection, and continue as well to provide property insurance to the nuclear industry—under the provisions of that bill.

S. 44, however, would plainly destroy the balance essential to the law by removing the limit on liability. It seeks also to regulate safety by increasing or decreasing liability for retro premiums based upon performance.

We don't believe that an obligation to pay smaller or greater retrospective premiums can be reasonably expected to affect safety. Licensees have much more immediate incentives for doing so. Even a minor malfunction at a plant could put it down for four or five days at a cost that could exceed $500,000 a day. Any more serious damage to equipment could put it down for weeks or months, with the costs being commensurately greater. And perhaps the greatest reason of all, there are very large uninsured property values at a nuclear facility site. If it's a one reactor site, it can have $3 billion or $4 billion in property values. The maximum property insurance they can buy to protect themselves and their electric ratepayers is about $1.2 billion, which means that there is an uninsured loss of

$2 billion or $3 billion just for property values. If you add the cost of decontamination it will well exceed that.

And then what are the circumstances where you have two reactors at a location? You could have $7 billion or $8 billion of property at risk, and $1.2 billion of coverage which must be shared between the two reactors at that one location. So there's more than enough risk under the present circumstances, and some people have suggested that there's even too much for the utilities who are operating these reactors.

Now, as to S. 843, it would reestablish Government indemnity of persons liable. The bill doesn't provide for a limit on the liability of persons who may be liable, nor is there a limit on the amount of the obligation of the Government to indemnify. Also, the costs of investigating, paying and defending claims have been deleted from the obligation of the licensees to pay retrospective premiums.

The proposal violates the fundamental balance of equities that is the keystone of the Price-Anderson law, that there be a limit on liability of persons liable at some reasonable figure. The pools administer the claims to be serviced by the deferred premiums in the second layer of financial protection paid by licensees. The relative costs of administering the claims may not be large because of provisions in the law which expedite the legal process. There will, however, surely be such costs, and these costs must be paid by the licensees as an integral part of their obligations to pay retro premiums if we're going to have a sound program.

Absent a statutory obligation, what assurance exists that these costs will be paid, and by whom? The pools could not continue to be responsible for implementing the second layer of financial protection unless there is a statutory requirement that licensees will pay these costs as a part of their obligation to pay retro premiums. This fault with the proposal must deter any responsible organization from assuming the role that insurers would be compelled to relinquish.

The indirect indemnity method of providing compensation under S. 843 may be misleading as to where the primary obligation lies for providing funds beyond the amount of financial protection, and I think it is more likely to raise questions on implementation than would a simple, straightforward obligation of the Government to provide the compensation. The Government's role in providing compensation should not be encumbered by being compelled to operate from a legal position of the persons the Government indemnifies.

In summary, this indirect undertaking by the Government is more complex, and hence less sure, than a direct commitment in which the Government would be less confined in the manner of its response. The bill removes the limit on the liability of licensees for claims costs without including other provisions for these costs. There is no provision for a limit on the liability of persons liable, which is essential for private interests to be protected.

And lastly, the bill reverts to the indemnity mode rejected by the Congress in 1975, so the insurers do not support this bill.

In conclusion, it is generally recognized by all that Price-Anderson renewal is in the public interest. We urge that the law's essential elements be renewed intact so that the program is sound and will function as intended, and that insurers can continue to provide the insurance that we have provided over these many years. Amendment 3238 observes the essential elements of the law, and we urge its adoption.

Senator **Breaux**. Thank you very much.

Let's talk about S. 843 and Amendment 3238. I take it that what you're saying on Senator Stafford's bill is that you do not support it because it is basically open-ended. The bill does not provide a limit on the liability of persons who may be liable, nor is there a limit on the amount of the obligation of the Government to indemnify. Isn't that situation the same with regard to Amendment 3238? The third level of compensation in 3238 is, "bring it to Congress." It provides for a Congressional review of the loss in excess of the limit and for the development of a compensation plan to be approved by the Congress.

What I'm saying is, there is no limitation on what the Congress could come back with, either in 3238 or S. 843, for that matter.

Mr. **Marrone**. I gather the intent under S. 843 is that the Congress would be obligated to pick up the liabilities of persons who might be liable, and that liability would have been fixed at the moment of the accident to the tort damages members of the public would have been entitled to against persons liable. Since the Government is, under S. 843, to pick up and assume those continuing liabilities on the same basis that those liabilities were created at the time of the accident, that would mean, it would seem to me, that the Federal Government or the Congress would be confined to paying tort damages as determined by a Federal District Court, and would likely not have the discretion to modify damages as might be more reasonable.

Senator **Breaux**. Why is that any different from that exact situation occurring under the situation with Amendment 3238?

Mr. **Marrone**. Under 3238, a limit on liability—there is a limit on liability of persons liable which takes effect when $6 billion or $7 billion—or, as adjusted to inflation, $8 billion or $10 billion—after $8 billion or $10 billion has been paid, no person is liable for anything further. Under 3238 it's clear that the recourse that the Congress intends is for the Government to step in and assume responsibilities for making adequate compensation payments to persons who have suffered loss. Under S. 843, it's not so clear that the Government's obligation would be to do just that.

Senator **Breaux**. From an insurance standpoint you're talking about variables and predictability. Can't a very solid argument be made under 3238 that Congress would come in, develop a compensation that is approved by Congress that decides to collect all of that additional amount, whatever we determine, from the utilities? You're trying to insure the utility; isn't that just as dangerous from that standpoint as S. 843?

Mr. **Marrone**. No, I think—I gather that the power—Congress would have the power to do exactly what you describe, and that seems to me to be a reasonable alternative to be decided at that time. If it turns out, however, that the accident is very bad, that the utility industry is going through a stage that it experienced four or five years ago when the interest rates were 16 or 18 percent and we had a large number of utilities in very poor financial shape, and if at the same time we had a crisis with respect to oil, it might be that the Congress would say that it's not prudent to add another burden at this time and in this fashion. Or it might be that someone would develop reasonable arguments to say that to pass this cost back to citizens, the electric ratepayers, is really a regressive tax. Why wouldn't it be fairer to add a surcharge to the income tax over the next three years, add two percent or one percent, and have these costs paid under a more progressive system? Why shouldn't the Congress have those options open to it at the time instead of making the commitment now?

I don't share the concern that has been expressed that the Congress would not act. I just cannot conceive how——

Senator BREAUX. I think you're correct, that Congress would act. I just am trying to get at the difference between your preference for 3238. In both 3238 and S. 843 Congress, as I understand it, is called upon to decide the question of who is going to pay costs over and above a certain amount.

Mr. MARRONE. Amendment 3238 is very clear for me in terms of the Congressional obligation to pay. S. 843 is less clear because what I see in S. 843 is no limit on the liability of persons liable, which means to me that if you have the bad accident you would have circumstance where you would have suits against all of the—against the reactor operator, all of the suppliers and contractors who were involved with that reactor because, since there's no limit on their liability, you would have to bring in as many potential defendants as you can to reach as many assets as you can. So you have suits against hundreds and hundreds of suppliers and contractors.

If the $7 billion is exceeded, what happens then? Section 170(e) of S. 843 provides that "financial protection funds are the exclusive source of funds where liability does not exceed the amount of financial protection." S. 843 says, "financial protection funds are the exclusive source where the liability does not exceed the amount of financial protection," which means that where the liability exceeds the amount of financial protection, it is not the exclusive source of funds. That means to me that suits against contractors, the utility and all suppliers will be sure to name as many of them as possible. It would mean that as the Congress considers this dilemma of how to act, the circumstances would be that you would have hundreds of suits against hundreds of suppliers and contractors. Each of those suppliers and contractors would, in effect, be counterclaiming against all the others. If there were 500, and I were a defendant, I would counterclaim against all 499. I'm not liable, but if I have to pay anything, you are liable to me.

Each of the 400 or 500 defendants would in turn have given notice to their insurance companies, "If I have to pay, you have to pay." I can envision that any proceeding involving these matters would involve hiring a football stadium so that we can get all the lawyers involved in order to try to solve what the answer to the riddle of "liability" might be.

And in the meantime the Congress will ask, do we put up the money to pay additional compensation? But some people will argue, as they are arguing here, that why should we? There are potential assets there that have not been reached yet. Ah, but the

Congress meant to hold those people harmless. Others would argue yes, they should be held harmless, but there would be strong dissent, I would think, arguing that Congress should let industry stew in its own juices.

The obligation of the Congress will have become not clear, and there will be strong voices, I am afraid, who would argue that we don't have to do anything now; let's see what comes out of this litigation.

There would be lack of purpose, as opposed to 3238, where there is one obligation to pay beyond $7 billion. That obligation is that of the Congress, and that's where it belongs. If the Congress would choose to go back to the utility industry and say, "You've paid the first $7 billion; we think there's $3 billion more and we think it should come from your electric ratepayers but we want to work this out with you," I think that's reasonable, and it should be an option that's open. But it should not be automatic; it should not be something that the Congress is compelled to do.

Senator **Breaux**. All right. The statute talks in terms of the maximum insurance available as what the utilities would have to carry. How is the figure that we have used, $160 million, arrived at? Why shouldn't it be $200 million? Why shouldn't it be $125 million? How is that arrived at?

Mr. **Marrone**. Our capacity is arrived at by soliciting insurance from around the world. We approach insurance companies in the United States and overseas as well, and we ask them to commit to this nuclear insurance program. We persuade them to do it because we have, we think, a sound rating system on the liability side. We have an insurance policy which includes in its limit of liability everything that we can pay; $160 million includes all liability, and individual insurance companies make individual decisions based upon their economic strengths; based on their attitudes toward nuclear power, perhaps; based on their attitudes with respect to wanting to work with the Congress in providing this coverage; and, to some extent, a sense of social obligation. We have been encouraging them more the last several years in terms of it being a sound business proposition, which we think it is.

Senator **Breaux**. How does that amount compare to other nations? Is it $160 million as a maximum allowable all over the world?

Mr. **Marrone**. In most jurisdictions overseas it's significantly less. Germany and Switzerland have recently increased the amount of financial protection they require, although I think in both cases it is still less. Now, what they require is the amount that's available, and the amount that's available is from insurance pools like ours that exist in Germany, France, Belgium, Holland—there are about 22 nations with nuclear pools. We reinsure one another, and the American pool has the most insurance capacity of all of them. For liability, it is $190 million, and for property insurance, another $620 million.

I might add, Senator, that I think that this total in property and liability insurance that the American nuclear pools have exceeds anything that exists anywhere in the world in terms of a pool operation.

Senator **Breaux**. Senator Moynihan's bill, S. 44, contains a section requiring modifying premiums based on safety records, what have you, which I would imagine is much like the way liability insurance is arrived at on determining a driver's liability insurance based on his track record, his lack of speeding tickets, violations, lack of accidents, what have you. Is that a good idea? Can it be made to work? What are your thoughts about it?

Mr. **Marrone**. My statement includes a couple of paragraphs, but basically we don't see it, being realistic, that a variation in what the prospective retrospective premiums would be would have any impact on the operations of a reactor.

Senator **Breaux**. Then they all pay the same premiums?

Mr. **Marrone**. The event is very remote. You know, you'd have to look at the converse of that argument. Would it mean that if I were to pay 20 percent less in the way of retro premiums, am I less inclined to be a safe operator? I don't think it works.

In the primary area of insurance, the first layer that we provide, several years ago the underwriters introduced a system to take into account the operations and management of a reactor so that there are debits and credits. The average reactor premium is about $550,000 a year. About three-quarters of that goes into a special reserve fund. If there are no losses for the industry, they get three-quarters back.

Senator **Breaux**. The point I'm trying to get at—perhaps I didn't express it clearly—is every utility that is operating a reactor paying the same premium?

Mr. **Marrone**. No, sir.

Senator **Breaux**. Is one that has had a shut-down reactor because of safety violations paying the same amount as one who has a perfect safety record? That's what I need some discussion on.

Mr. **Marrone**. Okay. Let me describe that.

Basically, going in, there are substantial variations with respect to premiums charged to reactors for the first $160 million of coverage——

Senator **Breaux**. So for the first $160 million they all pay the same premium?

Mr. **Marrone**. No, substantial variations, so that for some reactors the premium could be, for example—I don't know what the spread might be, but let's say it could be as low as $250,000 or $300,000 a year, and for another reactor like ConEd up above New York City, it might be $700,000 or $800,000 or $900,000 a year. That rating reflects size, the location of the reactor, population densities and property values in the area of interest.

But I should note, though there is a substantial variation in the premium, that variation reflects the premium charge for the first $100 million of insurance. Beyond $100 million or $120 million, something like that, the rate that we charge every reactor operator is substantially the same. We charge the reactor a premium of about $1,250 for $1 million worth of insurance for limits in excess of about $100 million. So above $100 million they pay the same premium, about $1,250 a million.

Senator **Breaux**. So in your opinion on the suggestion in Senator Moynihan's bill, it's not something that you think is needed?

Mr. **Marrone**. No, I do not. I do not.

Senator **Breaux**. Okay.

The final point is the question of indemnifying a contractor or whatever for acts of gross or willful negligence. I asked a question—I think you were in the audience—about how on some Government indemnification programs we indemnify operators or contractors for negligence, but there's generally an exclusion in those indemnification agreements that do not indemnify someone for gross or willful negligence, or that highest standard of negligence, or the worst standard of negligence, depending on the interpretation.

Is this unique in this industry, that we are indemnifying for all acts of negligence, including gross and willful negligence? Or is this a common practice?

Mr. **Marrone**. Insurance policies all cover for tort liabilities for negligence. No insurance policy I know of excludes or tries to distinguish "gross and willful," and my experience in the business the last 10 or 15 years is that every complaint that we receive has a series of causes of action stated. Every one of them will have a cause of action for gross and willful negligence, and the ability of law to distinguish between gross and willful negligence and common negligence just hardly exists anymore. The difference is such a subjective measure. Such subjective measures are so extremely difficult to apply that it's not useful. I heard Professor Murphy of Columbia University Law School testify a few weeks back on Price-Anderson issues to say that in law schools they hardly bother to distinguish between the difference when they teach torts because, in practice, there isn't much difference anymore. That's what we see as well, because every complaint makes that allegation. Every complaint demands punitive damages. And the difference between one plaintiff proving his case and securing those damages and another plaintiff not securing them has to do very much with the luck of the draw in terms of juries, disposition toward the defendant, effectiveness of attorneys, or having a particularly effective plaintiff's witness who really carries the jury. There are not objective standards for those words anymore.

Senator **Breaux**. I'm sure it's a good comparison, but insurance companies surely make a distinction between an accidental death and a suicide. You pay on one, you don't pay on the other.

Mr. **Marrone**. Yes, but that's a substantial difference, I think. But that's not my area, life insurance.

Senator **Breaux**. Well, you've given us some valuable testimony. Again, as I've said to the other panels, I think there may be other questions that we would submit to you.

We thank you for your appearance and also for your patience in being with us all afternoon.

Mr. **Marrone**. Thank you for the opportunity to appear, Senator.

Senator **Breaux**. With that, the subcommittee has completed all of our witnesses. The subcommittee now will stand adjourned until further call of the Chair.

[Whereupon, at 4:00 p.m., the subcommittee was adjourned, to reconvene at the call of the Chair.]

[Statements submitted for the record, responses to additional questions, and the bills S. 44 and S. 843 follow:]

PREPARED TESTIMONY
SUBMITTED BY THE
UNITED STATES NUCLEAR REGULATORY COMMISSION

TO THE

SUBCOMMITTEE ON NUCLEAR REGULATION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

CONCERNING
REAUTHORIZATION OF THE
PRICE-ANDERSON ACT

PRESENTED BY
LANDO W. ZECH, JR.
CHAIRMAN

SUBMITTED: APRIL 30, 1987

Mr. Chairman, my fellow Commissioners and I are pleased to appear before the Subcommittee to testify in its hearing on reauthorizing the Price-Anderson Act. We hope that an expression of our views today will assist the Subcommittee in its consideration of legislative proposals supported by various Senators -- S. 44, "Price-Anderson Enhancement Act of 1987, introduced by Senator Moynihan; S. 843, the "Price-Anderson Amendments Act of 1987," introduced by Senator Stafford, and Printed Amendment No. 3238, "Price-Anderson Amendments Act of 1985," introduced last session by Senators Simpson, McClure, Stafford, Johnston, Domenici and Bentsen.

I would like to emphasize at the outset that the NRC's primary concern is public health and safety. Our efforts are directed to preventing accidents and ensuring the safe use of nuclear power. Our agency's mission is not primarily to evaluate financial arrangements such as those established by the Price-Anderson Act. Nonetheless, while our overriding interest is that the plants be operated safely, we wish to work with you to assure that in the event of a significant release of radiation the public would be promptly and adequately compensated for losses suffered.

As you know, when the Price-Anderson Act became law in 1957, it had two basic objectives:

> First, to ensure that adequate funds would be available to the public to satisfy liability claims in the event of a catastrophic nuclear accident; and

Second, to remove the deterrent to private sector participation in atomic energy presented by the threat of potentially enormous liability in the event of such an accident.

I believe that even with the passage of time and the successful history of operation of over 100 nuclear power plants in the United States, these two basic objectives are still important to maintaining the nuclear power option which has been established by the Congress for our country. While we continue to believe that the possibility of a catastrophic nuclear accident in the United States is very small, if there were to be such an accident, comprehensive, prompt and equitable settlement of public liability claims must be assured. Consistent with this goal, any modification of this legislation must be undertaken cautiously lest it unwittingly upset the delicate balance of obligations between operators of nuclear facilities and the U.S. Government as representative of the people. I believe it is important to keep in mind that the purpose of this legislation is to serve the American people by achieving two goals -- preserving an energy option recognized by the Congress as important to the nation and assuring prompt payment of claims in the event of a nuclear accident. We should continually ask the question--are these goals for the American people being served?--as we review the various provisions to extend this legislation.

Background

Before expressing our requested views on S. 843 and Amendment No. 3238, I would like to describe the Price-Anderson Act in general to set the framework for the discussion to follow.

The Price-Anderson Act was initially enacted for a 10-year period, but was extended and amended in 1965 and 1975 and will expire on August 1, 1987 without Congressional action.

Licensees of large commercial nuclear power plants must provide proof to the NRC that they have the maximum amount of private nuclear liability insurance--generally referred to as financial protection--that is available. That financial protection, currently $705 million, consists of a primary layer of nuclear liability insurance of $160 million and a secondary retrospective premium insurance layer. This secondary layer works in the following way. In the event of a nuclear accident causing damages exceeding $160 million, the licensees of each commercial nuclear power plant would be assessed a prorated share of damages in excess of the primary insurance layer up to $5 million per reactor per incident. With 109 large commercial reactors under this system today, the secondary insurance layer totals up to $545 million.

The Price-Anderson Act authorizes the Commission to enter into indemnity agreements with reactor licensees. These agreements specify the amount of financial protection, if any, required of licensees. The agreements also specify the obligation of the Federal Government to provide funds when a nuclear accident exhausts private liability insurance or when no private liability insurance is required, such as with small university test reactors. This government obligation to provide funds is called "government indemnity."

The Price-Anderson Act places a ceiling on the total amount of public liability in an accident. This ceiling, or "limit of liability," for large commercial nuclear power plant licensees is currently tied to the maximum amount of insurance available through private sources. For many years, the limit of liability was $560 million. In 1975, Congress provided that the limitation on liability would grow, once the total protection of the primary and secondary layers of insurance reached and passed $560 million. In November 1982, the $560 million level was reached and the government's indemnity was, as a practical matter, essentially eliminated for large reactors. The present limit of $700 million will continue to increase in increments of $5 million for each new commercial reactor licensed to operate.

Congressional activity in 1986

The Congress recognized that the Price-Anderson Act would expire by its own terms on August 1, 1987. Thus both the House and the Senate began in 1986 actively to consider the terms by which the Act should be extended. Clearly the limitation on liability has been the most difficult and controversial issue associated with extending the Act. Although agreement on the limitation on liability was never reached in 1986, out of the debate it became clear that there was a strong consensus to favor a change in the structure of the liability limit. There was considerable support for an annual limitation per reactor on liability. This would permit the overall limitation of liability to float upward as additional reactors were licensed. Legislative initiatives that embraced such an approach to liability limits were introduced in both the Senate and the House of Representatives; however, final agreement was not reached.

The Commission has been called upon last year and this year to present to the Congress its views on the various Price-Anderson bills being considered, and in particular on the liability limit. The Commission's position recognized that, as in most legislation, a balancing of equities must be made by the Congress. Based on different balances, various alternatives might provide adequate assurance that all public liability claims could be paid. In that context, a majority of Commissioners favored Price-Anderson Act extension amendments that would provide for a substantially greater liability for reactor licensees than is provided by current law, but would retain the concept that any such liability would be bounded by a predetermined cap or cut-off.

S. 44, S. 843 and Amendment No. 3238

I would now like to discuss the three legislative initiatives that you requested us to address. I will very briefly summarize their salient provisions with respect to the Commission and its licensees by noting their similarities or differences with respect to the component issues.

° Commercially Available Insurance

All three are in accord that as a first tier of protection, utilities must continue to maintain as much insurance as is commercially available--currently $160 million.

° Reactor Assessments

All three provide for a very substantial increase over the current $5 million per reactor per accident deferred retrospective premium assessed against large commercial power reactors (the second tier). S. 843 and Amendment 3238 are very similar--S. 843 provides for retrospective premiums with a licensee's total annual payment limited to $10 million per reactor per accident and with a $63 million overall cap per accident; Amendment 3238 caps at $60 million per reactor per accident but permits a licensee's total annual payment to reach $12 million.

S.44 differs markedly. It provides no overall cap. The aggregate retrospective premiums, set at an annual limit between $10 and $15 million per reactor, continue so long as there are claims to be paid. The Commission is to discount retrospective premiums for the best performing utilities and surcharge the worst performers. The performance-rating is to be done by an outside group such as INPO.

° Limitations on Liability

Neither S. 44 nor S. 843 limits the liability to the public for accidents involving large commercial reactors; however, S. 843, like Amendment 3238, caps the utilities' initial liability to pay at the limit of the sum of the first and second tiers unless Congress provides otherwise.

Assuming current conditions the sum of those tiers would yield nearly $7 billion under S. 843--some $300 million less under Amendment 3238.

° Potential Third Tier of Protection

Both S. 843 and Amendment 3238 provide a procedure for the President and the Congress to put in place a third tier of financial protection whenever damages are likely to exceed the overall limit of liability. While Amendment 3238 commits Congress to providing a means for full compensation, under S. 843 there would be statutory authorization for liability for all claims and thus possibly a greater level of assurance that full compensation would be provided. Under both proposals, Congress may take whatever type action it deems necessary to fund compensation--apparently including enacting a revenue measure to recover from reactor licensees all or part of funds paid to satisfy public claims that exceeded the liability limit. As noted earlier, S. 44 requires an unlimited second tier and does not go beyond it.

° Authority of Commission to Reduce Annual Premiums

Under both S. 843 and Amendment 3238, the Commission may lessen the annual retrospective premium required from any licensee. However, S. 843 permits only a temporary reduction and then only in the event of multiple accidents in one year or where a licensee has more than one reactor and the standard premium would result in undue hardship to ratepayers or the licensee. Under S. 843 the amount of the reduction would ultimately be payable with interest.

S. 44 provides that where a licensee cannot meet a payment and the Commission makes up the sum, it is payable with interest, but does not specifically provide a mechanism for reduction of premiums for hardship.

° Study Commission

Under S. 843 and Amendment 3238, the President is to appoint a study commission to examine and report to Congress on alternative measures for compensating victims when claims from an accident exceed the liability limit. S. 44 has no such provision.

° Precautionary Evacuations

Under S. 843 and Amendment 3238, public and state and local governmental costs of a precautionary evacuation are compensable under Price-Anderson if there is liability under state law. S. 44 does not address the issue and thus omits such coverage.

° Automatic Inflation Escalator

Under S. 843 an automatic inflation escalator requires the Commission to adjust the standard deferred premiums for inflation every 5 years. S. 44 requires an annual adjustment. There is no corresponding provision in Amendment 3238.

° Time Limitations on Bringing Suit

S. 843 removes the force of any state statute of limitations, and with it the existing effective 20-year limitation leaving in place, as the sole limit, the current "within 3-years of discovery" rule. S. 44 and Amendment 3238 modify current law to provide a 30-year limitation bound also by the "within 3-years of discovery" rule.

° Exclusion of Litigation Costs

Under S. 843 payment of litigation expenses -- costs of investigating, settling or defending damage claims -- of either industry defendants or insurance pools may not reduce the availability of Price-Anderson funds for public compensation. Additional financial protection may be required to cover such costs. Amendment 3238 appears to allow payment of litigation costs from the retrospective premiums. S. 44 does not address the question.

° Bars on Punitive Damages

S. 853 and Amendment 3238 prohibit the award of punitive damages where in fact the United States is obligated to pay under an agreement of indemnification covering the incident. Under S. 44 punitive damages would be expressly excluded from the definition of "public liability". Thus, S. 44 would not allow Price-Anderson fund protection from punitive damages.

° Advance of Funds and NRC Borrowing Authority

Under S. 843 and Amendment 3238 the Commission would be provided borrowing authority to pay public liability claims if retrospective premiums are not sufficient to pay claims as they arise.

Under S. 44, repayable advances are authorized when necessary to pay public liability claims in excess of annual premiums collected. The sums must be repaid to the Treasury.

° Apportioning Plan

S. 44 would amend the Act to include a plan of apportionment of funds in the event of more than one accident for which compensation must be paid in any one year. Neither S. 843 nor Amendment 3238 addresses this issue directly.

The Commission's Views

The Commission supports the extension of the Price-Anderson Act. The Commission's primary goals for financial protection of the public are to assure prompt and full payment for public losses. While there may be other acceptable approaches considered by the Congress, the Commission believes that the provisions of the measures under consideration would meet these primary goals. However, we prefer the retention of some large ceiling on initial liability for any nuclear incident, and we therefore do not favor the unlimited liability provision of S. 44.

As noted earlier,the financial side of nuclear power operation is not the Commission's primary expertise. Accordingly, we do not take a position on the precise dollar amount of retrospective premiums that should be required from reactor licensees. While past staffwork has indicated that utilities will probably be able to pay an annual $10 million assessment, likely even $12 million, such a collection would be an extra-ordinary undertaking. Consideration of such an undertaking should be mindful that the contemplated collection could well take place in an atmosphere of impaired utility earnings resulting from the ramifications of the accident itself. The Commission has no special foresight as to the burden on the industry in such an atmosphere.

We note that under S. 843 and Amendment 3238 the Commission would be authorized to provide limited relief from the obligation to meet the full annual retrospective premium.

The Commission continues to support legislation that would prohibit the payment of punitive damages from federal or Price-Anderson funds. The Commission would not bar the assessment of punitive damages, where appropriate, against a liable party. If punitive damages are to be payable from Price-Anderson funds, but not from federal funds, care must be taken to defer the payment of such damages until it is clear that the first two tiers of financial protection are not exhausted. Otherwise, funds could be diverted from compensating the public and federal funds may become indirectly a source for payment of punitive damages.

The Commission supports inclusion of precautionary evacuations under Price-Anderson coverage where such evacuations are compensable under state tort law and are ordered by authorized state or local officials.

The Commission has consistently supported a recommendation that the Congress extend the statute of limitations for filing a public liability claim arising from a nuclear accident from 20 years to 30 years and to support a like increase from a 20 to a 30-year period in which those indemnified waive a right to plead any state statute of limitations. This extension is recommended in order to provide greater assurance that latent injuries caused by a nuclear accident are provided protection under the Price-Anderson system. But the inherent difficulties in proving that latent injuries were caused by the nuclear accident and not by some other factor or combination of factors appear to us to argue for some final cutoff to initiation of claims once a generous allowance has been made for accommodating the discovery of those injuries.

It is apparent from the foregoing discussion that the Commission fully supports some--but not all--aspects of each legislative proposal that is under consideration.

Our responses have been submitted to written questions propounded by the subcommittees by letter of April 10, 1987. We ask that they be included in the record as supplemental to this testimony.

Thank you for this opportunity to testify before the subcommittee.

QUESTION 1. Do you support full compensation to victims of a nuclear incident?

ANSWER.

Yes. Although the individual Commissioners may not agree on the method (i.e., the specific bill) to accomplish the goal of full compensation, it is the consensus of the Commission that such compensation should be provided for in whichever bill is enacted by the Congress.

4/30/87 BREAUX Q1

QUESTION 2. Should damages and causation continued to be determined according to the established standards of state tort law?

ANSWER.

Yes. This has been a principal feature of the Price-Anderson Act since its enactment in 1957. When the "extraordinary nuclear occurrence" provisions of the Act were adopted in 1966, the legislative history of that amendment showed a clear intent on the part of the Congress, to the maximum extent possible, to avoid the interference of Federal law with the operation of the well established tort law of the various States. Nothing has happened in the last 21 years to cause the Commission to recommend a change from the status quo on this issue.

4/30/87 BREAUX Q2

QUESTION 3. How large are the potential consequences of a nuclear accident?

ANSWER.

There is a broad spectrum of potential financial consequences of the offsite radiological releases from nuclear reactor accidents. There is no natural cutoff that could be called a worst case or maximum consequence; nevertheless, analysis by the staff suggests that accidents having offsite costs above ten billion dollars are highly unlikely.

Rough estimates of the spectrum of financial consequences are tabulated below.

Accident Description	Aggregate Financial Consequences*
Core Melt Accident with Containment Intact	None to Tens of Millions
Core Melt Accident with Partial or Delayed Containment Failure	$10M-$1B
Core Melt Accident with Early Containment Failure	$100M-$10B

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*These consequences cover offsite radiological losses, but not onsite decontamination or loss of the plant. The predominant contributor is property damage. Health effects include medical costs plus loss of employment revenue due to injury or death. These health effects amount to less than 10% of the total. Projections of punitive damages, pain and suffering awards, or other potential features of health effect liability have not been included, as these cannot be predicted reliably.

QUESTION 4. Do you believe that the potential consequences of a nuclear accident are such that providing full compensation to the victims would likely cause economic hardship or severe disruption to the source of funding for the accident that are specified in:

(a) S.44?
(b) S.843?
(c) Amendment No. 3238?

ANSWER.

S.843 provides that no more than $10 million per reactor per year could be collected from licensees following a nuclear incident. S.843 also contains an additional provision allowing the Commission to establish lesser annual deferred premiums under certain conditions. S.44 provides for a deferred premium of between $10 and $15 million, to be established by the Commission. Amendment No. 3238 established a $12 million per reactor per year standard deferred premiums. Although each bill differs in the total number of years that premiums can be collected, the fact that no more than $15 million per reactor could be collected in any one year mitigates the financial impact to utilities or others funding the accident. As noted in the Commission's testimony, the financial side of nuclear power operation is not the Commission's primary expertise. Accordingly, we do not take a position on the precise dollar amount of retrospective premiums that should be required from reactor licensees. While past staffwork has indicated that utilities will probably be able to pay an annual $10 million assessment, likely even $15 million, such a collection would be an extra-ordinary undertaking. Consideration of such an undertaking should be mindful that the contemplated collection could well take place in an atmosphere of impaired utility earnings resulting from the ramifications of the accident itself. The Commission has no special foresight as to the burden on the industry in such an atmosphere. We note that under S. 843 and Amendment 3238 the Commission would be authorized to provide limited relief from the obligation to meet the full annual retrospective premium.

CHAIRMAN

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

June 18, 1987

The Honorable John Breaux, Chairman
Subcommittee on Nuclear Regulation
Committee on Environment and Public Works
United States Senate
Washington, D. C. 20515

Dear Mr. Chairman

Enclosed are the Nuclear Regulatory Commission's responses to questions raised as a result of the Commission's testimony on issues related to renewal of the Price-Anderson Act.

Sincerely,

Lando W. Zech Jr.

Lando W. Zech, Jr.

Enclosure:
As stated

cc: The Honorable Alan Simpson

QUESTION 1. The Commission's testimony states that "The Commission supports inclusion of precautionary evacuations under Price-Anderson coverage where such evacuations are compensable under state tort law and are ordered by authorized state or local officials."

(a) Why does the Commission support the inclusion of the costs?

ANSWER.

The Commission believes that two policy principles apply here. First, even if a precautionary evacuation does not constitute a "nuclear incident" it bears a sufficiently close relation to the hazardous properties of nuclear materials that Price-Anderson coverage should not be denied. Second, in debates on the Price-Anderson Act, the Congress has repeatedly stated, and the Commission has repeatedly voiced its concurrence with, the following principle:

> Since its enactment in by Congress in 1957 one of the cardinal attributes of the Price-Anderson Act has been its minimal interference with State law. Under the Price-Anderson system, the claimant's right to recover from the fund established by the act is left to the tort law of the various states; . . .. S. Rep. No. 1605, 89th Cong., 2nd Sess. (Sept.16, 1966), reprinted in 1966 U.S. Code Cong. & Ad. News 3201, 3206.

Thus, where the costs of precautionary evacuations are compensable under state tort law and are ordered by authorized state or local officials, adherence to the above-stated principle by the Commission would logically lead it to support inclusion of such costs.

5/19/87 BREAUX Q1

(b) Identify the circumstances indicating the need for broadening the scope of Price-Anderson to include coverage for state tort liabilities incurred as a result of events other than a nuclear incident.

ANSWER.

As suggested by our response to question (a), we believe that there should be coverage for events other than those nuclear incidents where the event bears such a close relation to the hazardous properties of nuclear materials that lack of coverage seems arbitrary and unjust.

(c) Does the Commission support providing for the reimbursement of expenses incurred by state or local governments even if such expenses may not be compensable under state tort law?

ANSWER.

As was indicated in the answer to part (a) of this question, the Commission believes that a claimant's right to recover from the fund established by the Price-Anderson Act should be left to the tort law of the various states. The types of expenses incurred by state and local governments in the event of a nuclear incident or precautionary evacuation are the same types that these governmental entities would incur in responding to a fire, a transportation accident involving hazardous materials (other than radioactive materials), and other severe man-made or natural disasters.

(d) Please provide your analysis of the following precautionary evacuation provisions with respect to whether the provisions (i) broaden the protections for the persons indemnified to include indemnification for state tort liabilities incurred as a result of a precautionary evacuation, or (ii) provide for direct reimbursement to state and local officials for expenses incurred as a result of a precautionary evacuation --

(I) Sec. 5 of S. 843;

(II) Sec. 17 of Amendment No. 3238 to S. 1225 of the 99th Congress;

(III) the precautionary evacuation provisions of S. 1225 as reported by the Senate Committee on Energy and Natural Resources in the 99th Congress (see S. Rep. No. 99-310).

ANSWER.

(I) Section 5 of S. 843, among other things, would amend the definition of "nuclear incident" in section 11w. of the Atomic Energy Act of 1954, as amended, (AE Act) to read in pertinent part as follows:

> w. The term "public liability" means any legal liability arising out of or resulting from a nuclear incident or precautionary evacuation (including all reasonable additional costs incurred by a State, or a political subdivision of a State, in the course of responding to a nuclear incident or a precautionary evacuation), except: . . .. [Proposed amendatory language is underscored.]

This language would both (i) broaden the protections for the persons indemnified [i.e., any person who may be liable for public liability] to include indemnification for state tort liabilities incurred as a result of a precautionary evacuation and (ii) provide for reimbursement to state and local governments for reasonable expenses incurred as a result of a precautionary evacuation.

(II) Section 17 of Amendment No. 3238 to S. 1225 of the 99th Congress would add a new section 170s. to cover "any legal liability arising out of or resulting from a precautionary evacuation [as defined in a new section 11dd.] notwithstanding that no nuclear incident has occurred." Although the liability resulting from a precautionary evacuation is not specifically included within the existing definition of "public liability," the section-by-section analysis states:

> This section modifies current law so that such legal liability [arising out of a precautionary evacuation] will be treated in the same manner as "public liability" under the Price-Anderson Act, even though no nuclear incident has occurred. This means that persons who are indemnified . . . for public liability shall be indemnified . . . for any legal liability arising out of a precautionary evacuation. All substantive and procedural provisions applicable to public liability, such as the limit on aggregate liability, shall be applicable to any legal liability arising out of a

> precautionary evacuation. 132 Cong. Rec. S15408 (daily ed. October 6, 1986).

While section 17 of Amendment No. 3238 to S. 1225 of the 99th Congress would broaden the protections for the persons indemnified to include indemnification for state tort liabilities incurred as a result of a precautionary evacuation, it is "not intended to affect in any way the laws of any jurisdiction regarding legal liability for the costs of an evacuation incurred by state and local governments or the public." 132 Cong. Rec. S15408 (daily ed. October 6, 1986).

(III) The precautionary evacuation provisions of S. 1225 as reported by the Senate Committee on Energy and Natural Resources in the 99th Congress (*see* S. Rep. No. 99-310) would amend the definition of "nuclear incident" in section 11q. of the AE Act to include "precautionary evacuations" and add a new section 11v. defining the term "precautionary evacuation" to mean:

> . . . an action taken by a State or local government official to evacuate the public in the vicinity of a facility or transportation route involving activities under the risk of public liability for a nuclear incident, which is deemed necessary to protect the public health and safety from danger, or threat thereof, of a nuclear incident. S. Rep. No. 99-310, 99th Cong., 2nd Sess. 92 (1986).

Specific precautionary evacuation provisions would be added to section 170d. of the AE Act (which deals *only* with DOE contractors and does not apply to NRC licensees) to read as follows:

> d.(7) Such agreements [of indemnification] entered into pursuant to paragraph 170d.(1) shall include reimbursement for costs of precautionary evacuations ordered by a State or local official provided that such evacuation is deemed reasonable, given due consideration to information available to the State or local officials at the time of the decision to evacuate, ... S. Rep. No. 99-310, 99th Cong., 2nd Sess. 93 (1986).

Since there is no similar provision for NRC licensees, it can be inferred that the inclusion of the term "precautionary evacuation" in the definition of "nuclear incident" would (i) broaden the protections for the persons indemnified to include indemnification for state tort liabilities incurred as a result of a precautionary evacuation but (ii) that the provisions of section 170d.(7) indicate an unwillingness on the part of the Congress to provide for direct reimbursement to state and local officials for expenses incurred as a result of a precautionary evacuation involving NRC licensees.

QUESTION 2. (a) Please list all non-profit educational licensees indemnified under section 170K. of the Atomic Energy Act. Please include for each such facility the section of the Atomic Energy Act under which the facility is licensed.

ANSWER.

See attached chart.

5/19/87 BREAUX Q2

Indemnity Agreements With Non-Profit Educational Institutions

(Potential Federal indemnity is $500 million per nuclear incident above $250,000. All facilities are licensed under Section 104c. of the Atomic Energy Act.)

Licensee

Arizona, University of
Brigham Young University
California, University of (4)
Catholic University of America
Columbia University
Cornell University
Florida, University of
Georgia Institute of Technology
Idaho State University
Illinois, University of
Iowa State University
Kansas State University
Kansas, University of
Lowell Technologic Institute
Manhattan College
Maryland, University of
Massachusetts Institute of Technology
Memphis State University
Michigan State University
Michigan, University of
Missouri, University of (2)
New Mexico, University of
New York State University
North Carolina State University
Ohio State University
Oklahoma University
Oregon State University
Pennsylvania State University
Purdue University
Reed Institute
Rennesselaer Polytechnic Institute
Rhode Island and Providence Plantations
Texas A & M University of
Texas, University of
Utah, University of
Virginia Polytechnic Institute
Virginia, University of
Washington State University
Washington, University of
Wisconsin, University of
Worcester Polytechnic Institute

Note: The number in parentheses represents the indemnity agreements in effect for each licensee of the facility.

QUESTION 2(a) Attachment

QUESTION 2 (Continued) - 2 -

(b) Does the NRC indemnify these licensees for damage to property which is located at the site of and used in connection with the licensed activity?

ANSWER.

No. The definition of "public liability" in Section 11w. of the Atomic Energy Act means any legal liability arising out of or resulting from a nuclear incident, except "whenever used in subsections 170 a., c., and k., claims for loss of, or damage to, or loss of use of property which is located at the site of and used in connection with the licensed activity where the nuclear incident occurs."

5/19/87 BREAUX Q2

QUESTION 2 (Continued) - 3 -

(c) Does the NRC indemnify these licensees for costs of investigating and settling claims and defending suits for damage? In the event of a nuclear incident, who would bear these costs?

ANSWER.

Subsection 170k. of the Atomic Energy Act of 1954, as amended, which provides indemnification for non-profit educational institutions, specifically excludes payment of costs. These costs could be paid by the Commission under subsections 170g. and j. of the Act with a supplemental Congressional appropriation specifically allocated for claims handling.

(d) Who would provide the services of claims settlement and processing in the event of an extraordinary nuclear occurrence arising from the activities of a licensee indemnified under section 170k.? Would procedures and personnel be available immediately after an ENO to provide these services?

ANSWER.

The Commission, under subsection 170g., has the authority to enter into contracts with claims handling companies to investigate, defend, and settle claims arising out of nuclear incidents. The services of these companies could be available immediately after an incident as evidenced by the quick response after the Three Mile Island accident.

QUESTION 3. (a) Please provide a description of all civil penalty authority available to NRC for violations of NRC regulations by the licensees identified in 2(a). Include a description of the type of conduct to which the penalty may be applied and the maximum amount of the penalty.

ANSWER.

The NRC's enforcement jurisdiction is drawn from the Atomic Energy Act (Act) of 1954, as amended, and the Energy Reorganization Act (ERA) of 1974, as amended. Section 234 of the Act, as amended, authorizes NRC to impose civil penalties not to exceed $100,000 per violation per day for the violations of certain specified licensing provisions of the Act, rules, orders, and license terms implementing these provisions, and for any violation for which licenses can be revoked. In addition to the enumerated provisions in section 234, sections 84 and 147 authorize the imposition of civil penalties for violations of regulations implementing those provisions in an amount similar to section 234. Section 206 of the Energy Reorganization Act authorizes NRC to impose civil penalties for knowing and conscious failures to provide certain safety information to the NRC in an amount similar to section 234. The NRC Enforcement Policy, 10 CFR Part 2, Appendix C, provides guidance on assessing civil penalties for various violations. A copy of the NRC Enforcement Policy is attached.*

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*The material referred to has been retained in committee files.

5/19/87 BREAUX Q3

QUESTION 3. (Continued) - 2 -

(b) Please provide a listing of all civil penalties assessed against non-profit educational licensees in the past twelve months.

ANSWER

	LICENSEE	AMOUNT PAID	DATE PAID
	Harvard University	$ 2,500	07/08/86
	Ferris State College	$ 10,500	08/21/86
*	Texas A&M	$ 833	01/29/87
*	University of Utah	$ 3,000	03/30/87
	University of Wisconsin	$ 1,250	05/14/87
*	University of Missouri	$ 4,000	Imposed by Order dated 05/22/87 which requires payment or a request for a hearing within 30 days.

* Penalty imposed for violations of the provisions of the Section 104 c. license.

5/19/87 BREAUX Q3

(c) How does the Commission determine how much to assess non-profit educational licensees for violation of NRC regulations? Is ability to pay a factor?

ANSWER

The NRC imposes different levels of penalties for different severity level violations and different classes of licensees. The NRC's General Statement of Policy and Procedure for Enforcement Actions, 10 CFR Part 2, Appendix C, contains tables which show the base civil penalties for various types of licensees, e.g., reactor, fuel fabricators, industrial users. Line h of Table 1A lists the base civil penalties for academic or medical institutions. The structure of these tables generally takes into account the gravity of the violation as a primary consideration and the ability to pay as a secondary consideration. Generally, operations involving greater nuclear material inventories and greater potential consequences to the public and licensee employees receive higher civil penalties. Regarding the secondary factor of ability of various classes of licensees to pay the civil penalties, it is not the NRC's intention that the economic impact of a civil penalty be such that it puts a licensee out of business (orders, rather than civil penalties, are used when the intent is to terminate licensed activities) or adversely affects a licensee's ability to safely conduct licensed activities. The deterrent effect of civil penalties is best served when the amounts of such penalties take into account a licensee's "ability to pay." Thus, the base civil penalty for an academic institution is substantially less than that for a power reactor or fuel fabricator. The base civil penalty for a Severity Level I violation, the most significant, at an academic or medical institution is $5,000. This compares with $100,000 for a reactor.

In essence, the Enforcement Policy tables for base civil penalties take into account a class of licensee's ability to pay. In addition, a licensee may raise an argument regarding its ability to pay in a particular case because of its specific circumstances. Also, the Enforcement Policy provides for various mitigating and escalating factors which are applied to all types of licensees.

(d) In general, does the Commission believe that civil penalty authority provides an effective deterrent to violations of NRC regulations? Is this true for non-profit educational licensees as well as for large commercial nuclear power plants? For governmental licensees?

ANSWER

The three basic types of enforcement actions available to NRC are Notices of Violation, Civil Monetary Penalties, and Orders. Notices of Violation are sent to licensees which identify failure to comply with regulatory requirements and request statements of remedial and preventive actions. Civil penalties and orders may be imposed for more serious licensee noncompliances. Civil penalty authority was granted in 1969 to provide the AEC with flexibility in dealing with situations in which Notices of Violation might be inadequate but where more severe sanctions, such as orders, might not be appropriate or in the public interest. NRC has continued the AEC practice of establishing the dollar amounts of civil penalties with regard to the severity of the noncompliance, and the type of licensee, since the various types differ in terms of potential consequences of noncompliance and economic strength. The base levels are contained in the NRC's General Statement of Policy and Procedure for Enforcement Actions, 10 CFR Part 2, Appendix C.

Nineteen years of experience with the civil penalty sanction and at least two major revisions to the Enforcement Policy, provide a basis for concluding that the Commission considers the civil penalty sanction important in effectively deterring violations of NRC regulations. In at least some respects, the deterrent effects of civil penalties on licensees, whether large commercial power plants, educational institutions, or governmental organizations, is approximately the same. Civil penalties by their nature have a monetary impact albeit small for the majority of NRC licensees. However, a civil penalty, even a relatively small one, may often cause enhanced attention by senior licensee management to the associated violation and its causes. Failure to assure lasting corrective action for civil penalty violations may result in escalating penalties and orders. In addition, the adverse publicity associated with a civil penalty is something licensees usually desire to avoid and may bring more attention to address an issue. These factors are present for all licensees.

(e) Does the Commission's current civil penalty authority provide NRC with authority to assess civil penalties against DOE contractors that undertake activities pursuant to the Nuclear Waste Policy Act of 1982? Must such contractors be NRC licensees for such civil penalty authority to apply?

ANSWER.

After the issuance of a license to DOE, the NRC would have authority to impose civil penalties in connection with certain conduct of DOE contractors. For example, 10 C.F.R. Part 21 provides for reporting of defects and noncompliance by a director or responsible officer of a firm constructing, owning, operating or supplying the components of any facility or activity which is licensed or otherwise regulated pursuant to the Atomic Energy Act of 1954, as amended, or the Energy Reorganization Act of 1974. Part 21 applies to all activities authorized by the Atomic Energy Act, and would apply to DOE contractors. 10 C.F.R. 21.61 provides that any director or responsible officer subject to the regulations in Part 21 who knowingly fails to provide notice to the NRC of noncompliance or a defect as set forth in section 21.21 shall be subject to a civil penalty as provided by section 234 of the Atomic Energy Act. Consequently, a director or responsible officer of a DOE contractor would be subject to a civil penalty for failure to provide such notice.

The circumstances in which the NRC could impose a civil penalty upon DOE contractors in cases other than those falling under Part 21 are less clear. Generally, the Commission's requirements apply to licensees, and licensees are held responsible for the conduct of their contractors. Therefore, a licensee is responsible for a violation of a requirement caused by its contractor, and a civil penalty for such a violation can be imposed. Whether NRC could legally impose a civil penalty directly on a DOE contractor is a matter of first impression which has not been addressed in view of the long-standing Commission policy of holding licensees fully accountable for all licensed activities.

QUESTION 4. Please provide a list of all facilities indemnified under section 170c. Are there any facilities for which the NRC requires financial protection less than $560 million and that are not indemnified under section 170c.? Please explain the difference between the Commission's discretion under section 170a. to either require financial protection as provided under section 170b. or to execute an indemnification agreement under section 170c. and the requirement under section 170c. to indemnify all licensees for which less than $560 million in financial protection is required.

ANSWER.

A list of all licensees indemnified under subsections 170a. and c. showing required financial protection and Federal indemnity is attached. This list includes facilities for which less than the maximum financial protection of $710 million is required. Subsection 170a. requires that all reactors, regardless of size, provide financial protection in some amount. Above this amount and up to a maximum of $500 million, the Commission indemnifies, under subsection 170c., these licensees through the execution of indemnity agreements that it enters into with these licensees. Reactors above 100 Mw(e) are required, under subsection 170b., to provide financial protection equal to the maximum liability insurance available from private sources. This amount, as indicated, is presently $710 million and is comprised of a primary insurance layer of $160 million and a secondary insurance layer of $550 million.

5/19/87 BREAUX Q4

QUESTION 4 (Continued) - 2 -

The Commission has extended its discretionary indemnity authority under subsection 170a. and has required certain plutonium processing facilities to maintain the maximum primary insurance available, presently $160 million, and has entered into indemnity agreements with these licensees.

Indemnity Agreements With Power Reactors Above 100Mw(e)

(These licensees are required to and maintain financial protection
of $710 million; potential Federal indemnity
is $500 million per nuclear incident)

Licensee

Alabama Power Company
Arizona Public Service Company
Arkansas Power and Light Company
Baltimore Gas and Electric Company
Boston Edison Company
Carolina Power and Light Company (2)
Cleveland Electric Illuminating Company
Commonwealth Edison Company (5)
Connecticut Yankee Atomic Power Company
Consolidated Edison Company
Consumers Power Company
Detroit Edison Company
Duke Power Company (3)
Duquesne Light Company
Florida Power Corporation
Florida Power and Light Company (2)
Georgia Power Company (2)
Gulf States Utilities Company
Illinois Power Company
Indiana and Michigan Power Company
Iowa Electric Light and Power Company
Kansas Gas and Electric Company
Long Island Lighting Company
Louisiana Power and Light Company
Maine Yankee Atomic Power Company
Metropolitan Edison Company
Mississippi Power and Light Company
Nebraska Public Power District
Niagara Mohawk Power Corporation
Northeast Nuclear Energy Company
Northern States Power Company (2)
Omaha Public Power District
Pacific Gas and Electric Company
Pennsylvania Power and Light Company
Philadelphia Electric Company (2)
Portland General Electric Company
Power Authority of the State of New York
Public Service Company of Colorado
Public Service Company of New Hampshire
Public Service Electric and Gas Company
Rochester Gas and Electric Company
Sacramento Municipal Utility District
South Carolina Electric and Gas Company
Southern California Edison Company

Note: The number in parenthesis represents the indemnity agreements in effect for each licensee-operator of the facility.

QUESTION 4 Attachment

Tennessee Valley Authority (2)
Toledo Edison Company
Union Electric Company
Vermont Yankee Nuclear Power Corporation
Virginia Electric and Power Company (2)
Washington Public Power Supply System
Wisconsin Electric Power Company
Wisonsin Public Service Corporation
Yankee Atomic Electric Company

Indemnity Agreements with Power Reactors Less Than 100 Mw(e)

(Potential Federal indemnity is $500 million per nuclear incident)

Licensee	Required Financial Protection
Consumers Power Company (Big Rock Point)	$44,400,000
Dairyland Electric Cooperative (La Crosse)	$30,600,000
Detroit Edison Company (Fermi Unit 1)	$665,000,000*
Pacific Gas and Electric Company (Humboldt Bay)	$53,300,000
Philadelphia Electric Company (Peach Bottom Unit 1)	$665,000,000*

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*Fermi Unit 1 and Peach Bottom Unit 1 are single units of multi-unit large power reactor stations; the current maximum financial protection of $710 million, which is that required of large power reactors, covers all of the reactors at the site.

Indemnity Agreements With Federal Agency Reactors

(Potential Federal indemnity is $500 million per nuclear incident; no financial protection required)

Licensee

Armed Forces Radiobiology Research Institute
U.S. Army Materials Research Agency
U.S. Geological Survey
National Aeronautics and Space Administration
National Bureau of Standards
Maritime Administration
Veterans Administration Hospital

Indemnity Agreements With Non-Power Reactors

(Potential Federal indemnity is $500 million per nuclear incident)

Licensee	Required Financial Protection
Aerotest Operations, Inc.	$1,500,000
Battelle Memorial Institute	$1,000,000
Battelle Memorial Institute	$1,000,000
Dow Chemical Company	$1,500,000
G. A. Technologies, Inc.	$2,500,000
General Electric Company	$18,500,000
Northrop Corporation	$1,500,000
Rockwell International Corporation	$1,000,000
Saxton Nuclear Experimental Corporation	$6,300,000
Union Carbide Corporation	$2,500,000
Westinghouse Electric Corporation	$1,000,000
Westinghouse Electric Corporation	$1,000,000

Indemnity Agreements With Plutonium Processing and Fuel Fabrication Facilities

(Potential Federal indemnity is $500 million per nuclear incident)

Licensee	Required Financial Protection
Babcock & Wilcox Company	$160,000,000
Babcock & Wilcox Company	$160,000,000
General Electric Company	$160,000,000
Exxon Nuclear Corporation	$160,000,000
Westinghouse Electric Corporation	$160,000,000

QUESTION 5. Does the Commission support raising the limit on liability and the corresponding amount of government indemnity in the event of a nuclear accident involving a licensee indemnified under sections 170c. or 170k. to the equivalent amount that would be available in the event of an accident involving a large commercial nuclear power plant or a DOE contractor?

ANSWER.

The Commission has not performed a detailed analysis of the need to modify the liability limit for non-profit educational licensees. However, the Commission knows of no reason to modify the existing liability limit. Since the existing liability limit was established, these types of reactors have not changed significantly in design or size. Therefore, the potential off-site consequences have not changed significantly.

5/19/87 BREAUX Q5

QUESTION 6. (a) Please comment upon the enclosed amendment proposed by the National Association of Nuclear Pharmacies. Does the Commission support this amendment? Does the Commission believe this amendment is necessary to retain important services of byproduct licensees in the field of nuclear medicine?

ANSWER.

The Commission does not support the amendment proposed by the National Association of Nuclear Pharmacies. The 1975 amendments to the Price-Anderson Act were intended to phase out government indemnity to the fullest extent possible. The proposed amendment is contrary to this intent in that it would subject the Commission to potentially unlimited liability. The Commission does not perceive any hazard unique to the field of nuclear medicine which would warrant it indemnifying these byproduct material licensees while excluding all other byproduct material licensees from similar treatment, nor does the Commission believe this amendment necessary to retain important services of byproduct licensees in the field of nuclear medicine.

We are attaching our response to questions from the House Interior Committee concerning indemnification of producers and users of radiopharmaceuticals.

5/19/87 BREAUX Q6

QUESTION 6. (Continued)

(b) Are there any instances in which state courts have awarded damages under state tort law for activities of NRC licensees in compliance with NRC regulations?

ANSWER.

The Commission is not aware of any instances in which state courts have awarded damages under state tort law for activities of NRC licensees in compliance with NRC regulations.

CHAIRMAN

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

May 5, 1987

The Honorable Morris K. Udall, Chairman
Subcommittee on Energy and the Environment
Committee on Interior and Insular Affairs
United States House of Representatives
Washington, D. C. 20515

Dear Mr. Chairman:

I am enclosing the Commission's responses to your questions of April 9, 1987, concerning federal indemnification of persons who produce or use radiopharmaceuticals.

We would note that the amendment under discussion would, if enacted, have a substantial impact on NRC. The amendment would require NRC to enter into and administer about 7,800 indemnity agreements. The amendment would also require unlimited Governmental indemnity for all liability, including liability for medical malpractice, for use of radioactive materials involved in the practice of nuclear medicine. The only limit on the Government's indemnity is that claims smaller than $500,000 would not be covered. We do not have the data to accurately assess the budgetary impact on the Federal Government for such a broad program of Federal indemnity.

Sincerely,

Lando W. Zech Jr.

Lando W. Zech, Jr.

Enclosure:
As stated

cc: The Honorable Manuel Lujan

QUESTION 1. a. How many nuclear pharmacies or nuclear medicine departments of hospitals or clinics licensed by the Commission would the amendment require the Commission to indemnify?

ANSWER.

The number of affected licensees would depend on the scope of the amendment. Many different kinds of licensees use byproduct material in patient care services. The NRC has licensed 1800 medical institutions, 500 private practitioners, 20 mobile nuclear medicine services, 300 teletherapy services, 100 in vitro blood testing laboratories, 40 nuclear pharmacies, 10 radiopharmaceutical manufacturers, and 10 sealed source manufacturers that possibly would be affected by adding an indemnification section.

QUESTION 1 (Continu)

b. In how many States are nuclear pharmacies and nuclear medicine departments licensed by the State rather than the NRC? (Please provide a list of these States.)

ANSWER.

There are twenty-eight (28) Agreement States which license the possession and use of byproduct material by nuclear pharmacies and nuclear medicine departments. A list of these states is enclosed.

4/9/87 UDALL Q1

QUESTION 18. (continued)

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QUESTION 18. (continued)

5/1/67

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QUESTION 1B. (continued)

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QUESTION 18. (continued)

9/15/69

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Amended
3/24/82

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Mr. Terry R. Strong, Head
Office of Radiation Protection

&
Amended
2/19/82

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Airdustrial Park
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QUESTION 1 (Continued)

c. How many nuclear pharmacies and nuclear medicine departments that are licensed by Agreement States would the amendment require the Commission to indemnify?

ANSWER.

The amendment would require the Commission to indemnify approximately 5,000 nuclear pharmacies and nuclear medicine departments that are licensed by the 28 Agreement States.

QUESTION 1 (Continued)

d. How many NRC employees (FTEs) would be required to administer the indemnification program mandated by the amendment?

ANSWER.

Although it is too early to provide a firm estimate, it appears that since we would anticipate having to enter into over 7,800 indemnity agreements with NRC and Agreement State byproduct material licensees, we estimate that eight (8) additional FTEs would be required to initiate the program and six (6) FTEs to administer these additional responsibilities on an ongoing basis.

QUESTION 2. a. What types of situations does the Commission classify as a "misadministration"?

ANSWER.

The term "misadministration" is defined in §35.2 of 10 CFR Part 35, "Medical Use of Byproduct Material." Misadministration means the administration of:

(1) A radiopharmaceutical or radiation from a sealed source other than the one intended;

(2) A radiopharmaceutical or radiation to the wrong patient;

(3) A radiopharmaceutical or radiation by route of administration other than that intended by the prescribing physician;

(4) A diagnostic dosage of a radiopharmaceutical differing from the prescribed dosage by more than 50 percent;

(5) A therapy dosage of a radiopharmaceutical differing from the prescribed dosage by more than 10 percent; or

(6) A therapy radiation dose from a sealed source such that errors in the source calibration, time of exposure, and treatment geometry result in a calculated total treatment dose differing from the final prescribed total treatment dose by more than 10 percent.

b. Would the federal indemnity under paragraph u.(1) of the amendment apply to "misadministrations" of nuclear medicine (e.g., overdoses) or only to unintended releases of radioactive materials?

ANSWER.

An "administration" is an intentional release of radioactive material. By definition, a "misadministration" may be an overdose due to an unintended release of radioactive material. Notwithstanding the fact that a single specific event characterized as an "unintended release of radioactive materials" also may constitute a "misadministration," both events would appear to be covered by federal indemnity under subsection u.(1), provided, of course, that they occur in the practice of nuclear medicine. Under the provisions of the proposed amendment, the agreements of indemnification would cover public liability "from nuclear incidents or other events in which any radioactive materials are involved in the practice of nuclear medicine." [Emphasis added.]

QUESTION 2 (Continued)

c. Would the bar to recovery under paragraph u.(2) apply to "misadministrations" or only to unintended releases?

ANSWER.

Subsection u(2) of the amendment would lead to anomalous results because, while some misadministrations can be regarded as "emissions of radioactive materials" within the meaning of subsection u(2), NRC has not prescribed any numerical levels for permitted releases to patients in the diagnosis or treatment of patients. See 10 CFR 20.107. Thus State courts, which would most likely be called upon to apply subsection u(2), may reasonably conclude that no release to the patient during the course of diagnosis or treatment, no matter how large, can be actionable.

QUESTION 2 (Continued)

d. Would the bar to recovery under paragraph u.(2) operate to prevent patients from recovering for injuries caused by medical malpractice?

ANSWER.

Yes. See response to Question 2.c.

e. Would the federal indemnity under paragraph u.(1) apply to malpractice claims?

ANSWER.

Yes.

QUESTION 3 a. Approximately how many misadministrations and unintended releases occur at nuclear pharmacies or nuclear medicine departments licensed by the NRC per year?

ANSWER.

Diagnostic misadministration, as used in NRC regulations, refers to the misadministration of radioisotopes in nuclear medicine studies such as brain scans and bone scans. Therapy misadministration, as used in NRC regulations, refers to the misadministration of radiation from cobalt-60 teletherapy or radioisotopes in radiation therapy. Regarding the frequency of events, over a six year period ending December 1986, 42 therapy misadministrations were reported or an approximate annual average of 7. For diagnostic misadministrations there were 2396 reported or an approximate annual average of 400. A recent annual report on misadministrations is enclosed.

The NRC estimates that each year approximately 2 percent of its medical use licensees unintentionally release byproduct material. However, these releases almost always are composed of one-time, sub-microcurie amounts of short half-life byproduct material that is in NRC's lowest hazard classification. Therefore, the NRC does not expect that any of these releases poses a hazard to the public health and safety.

Enclosure:
As stated

QUESTION 3 (Continued)

b. Approximately how many misadministrations and unintended releases occur at nuclear pharmacies or nuclear medicine departments licensed by Agreement States per year?

ANSWER.

The Commission does not have data on this aspect, because not all Agreement States have misadministration reporting requirements. It should be noted that the Commission has made misadministration reporting a matter of compatibility for Agreement States. The Agreement States will have three years from April 1, 1987, in which to adopt this requirement in order to remain compatible with NRC regulations.

There were approximately 450 medical misadministrations reported to the NRC during 1986 by its 2500 medical licensees. Since there are approximately 5,000 medical licensees in the Agreement States, one could infer a yearly medical misadministration rate of approximately 900 if one assumed that the number of incidents is directly proportional to the number of licensees.

The NRC does not have data regarding unintended releases from Agreement State nuclear medicine or nuclear pharmacy facilities except as they meet the criteria for Abnormal Occurrence Reporting. The NRC receives reports of abnormal occurrences in Agreement States and combines them with similar NRC licensee data in a quarterly report to Congress. Not all unintended releases meet the abnormal occurrence report criteria and thus complete data on unintended releases of radioactivity from Agreement State licensees are not available. We have reviewed the last 2 years of Abnormal Occurrence Reports and have not found any unintended releases from Agreement State nuclear medicine facilities or nuclear pharmacies.

QUESTION 3 (Continued)

c. Approximately how many such misadministrations and unintended releases, both at NRC licensees and at Agreement State licensees, could be expected to result in public liability in excess of $500,000 per year?

ANSWER.

We have no basis for answering this question.

QUESTION 4. a. Do any Agreement States impose emission standards for nuclear medicine that are more stringent than those of the NRC? If so, please identify the states.

ANSWER.

All Agreement States have adopted regulations which have equivalent standards to 10 CFR Part 20. There may be, however, individual cases in which an Agreement State could impose a more stringent emission requirement by license condition because of particular local circumstances. We do not have data on this aspect.

b. Would paragraph u.(2) of the amendment bar victims from suing a licensee if the licensee was within an inapplicable but more lenient NRC standard, even though the licensee violated an applicable and more stringent state standard?

ANSWER.

A literal reading of proposed subsection u.(2) leads one to conclude that, in general, if a nuclear medicine licensee is in compliance with NRC regulations, it is exempt from public liability resulting from emissions of radioactive material. As presently drafted, proposed subsection u.(2) does not appear to apply to Agreement State licensees. This drafting defect leads to an internal inconsistency within proposed section u. regarding the section's applicability to Agreement State licensees.

QUESTION 5. Does paragraph u.(1) subject the federal government to unlimited liability in view of the fact that the liability limit of section 6 of H.R. 1414 applies only to persons required to maintain financial protection and the amendment exempts nuclear medicine licensees from the financial protection requirement?

ANSWER.

As presently drafted, subsection u.(1) read in connection the limitation of liability section of H.R. 1414 would subject the federal government to the potential of unlimited liability. This interpretation stems from the fact that the limitation of liability provisions of section 6 of H.R. 1414 only apply to persons required to maintain financial protection. A similar situation would exist with respect to nonprofit educational institutions licensed under section 170 k., except for the fact that the federal government indemnity is limited to $500,000,000 by the provisions of section 170 k.

QUESTION 6. Are nuclear medicine licensees able to obtain any insurance against public liability either for misadministration or unintended releases?

ANSWER.

Although we do not address the issue directly in our regulatory program to ensure public health and safety, the NRC staff assumes that the malpractice insurance that most physicians and hospitals carry covers "misadministration" by a licensee. We are also uncertain as to whether nuclear medicine licensees purchase insurance for unintended releases. However, based on informal interviews with some licensees, the staff assumes that, if it is available at all, "environmental" insurance is very costly, that is to say in approximately the same premium range as malpractice insurance. This question would be better addressed to associations or trade groups representing hospital and other medical byproduct materials licensees.

QUESTION 7. If insurance is not available, are there other alternatives for these licensees to utilize that would provide liability coverage?

ANSWER.

Yes. In a recently prepared report for the Commission staff by Battelle Northwest on the related question of onsite clean up for accidental releases of radioactive material, "Regulatory Analysis of Proposed Financial Assurance Requirements for Materials Licensees," April 1987, a number of alternatives other than insurance were discussed. These include the creation of captive insurance companies, the creation of trust funds, the formation of risk retention groups, or other financial mechanisms such as surety bonds or standby letters of credit. None of these alternatives are presently being utilized so it is difficult to determine their advantages or disadvantages.

QUESTION 8. Has any nuclear medicine licensee ever been held liable for any uninsured liability resulting from the practice of nuclear medicine?

ANSWER.

The NRC staff responsible for medical use program oversight is not aware of any such case nor has any licensee ever brought such a situation to the staff's attention.

QUESTION 9. Has any nuclear medicine licensee ceased practicing nuclear medicine because of the threat of uninsurable liability?

ANSWER.

The NRC staff responsible for medical use program oversight is not aware of any such case.

QUESTION 10. Has any nuclear medicine licensee ever, either formally or informally, requested NRC indemnification under the existing Price-Anderson Act?

ANSWER.

The NRC staff responsible for medical use program oversight is not aware of any case where a nuclear medicine licensee has requested, either formally or informally, such indemnification.

QUESTION 11. What would be the impact on the NRC if it were required to indemnify these types of licensees?

ANSWER.

The NRC staff has examined the following facets of this question: the scope of coverage; the number of events expected each year; and the cost of managing the indemnification program.

The scope of coverage in the draft statutory language supplied does not clarify which portion of the medical use service industry is to be indemnified. Many different kinds of licensees use byproduct material in patient care services as noted in response to question 1.a. The impact on the NRC depends on the size of the indemnification program but, irrespective of the exact size of the program, it appears that the impact would be substantial.

As a gauge of the number of incidents that may initiate indemnification action, the NRC notes that an average of 7 therapy misadministration events are reported each year. It is possible that indemnification action would be initiated for each reported event.

QUESTION 11. (Conti. .d) - 2 -

The cost of managing the indemnification program would depend on the scope of the statute. At present, the Commission has in effect approximately 145 indemnity agreements. If this amendment were retained, the Commission would be required to enter into more than 7,800 indemnity agreements, both with NRC byproduct materials licensees as well as with Agreement State licensees. As was stated in the answer to Question 1.d., the NRC would probably need six to eight additional FTEs to administer such a program. It would also have to enter into claims adjudication contracts with outside companies. We would anticipate significant expenses involved in investigating, settling and defending claims. Since H.R. 1414 presently precludes utilizing Price-Anderson funds to pay these expenses, separate appropriations would be required.

QUESTION 12. To your knowledge, do any hospitals with nuclear medicine departments self-insure for malpractice or other types of claims?

ANSWER.

The NRC staff has no information on this matter because the NRC has historically not examined the business affairs of byproduct material license applicants unless those affairs are directly related to the applicant's ability to assure the safe receipt, use, transfer, decommissioning, and disposal of byproduct material.

QUESTION 13. Would the amendment require Federal indemnity for activities not licensed by the NRC?

ANSWER.

The amendment would clearly require the federal government to indemnify those nuclear medicine licensees who are licensed by Agreement States.

STATEMENT BY JAMES K. ASSELSTINE
COMMISSIONER, U.S. NUCLEAR REGULATORY COMMISSION

BEFORE THE

SUBCOMMITTEE ON NUCLEAR REGULATION
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

APRIL 30, 1987

Mr. Chairman, I would like to add a few comments to the Commission's testimony. In my opinion, both S.44 and S.843 represent significant improvements over the current Price-Anderson Act. Each has elements which will enhance the Act, and each deserves careful consideration. I continue to support the Commission's 1983 recommendation to the Congress as the best means of accomplishing the public policy goals of the Price-Anderson Act. Since S.44 is essentially the same as that 1983 recommendation, I would prefer that bill. I do, however, have a few comments and suggestions on the bill which I will discuss later in my testimony.

1983 Recommendation

A key feature in the Commission's 1983 report to the Congress was the Commission's recommendation that the Congress replace the present absolute limitation on liability in the Act with an annual limitation on liability. Under this approach, deferred premiums of $10 million for each operating reactor would be collected each year until all public liability claims resulting from a nuclear accident have been paid. The difference between this approach and S.843 is that under the Commission's 1983 proposal the $10 million per reactor annual payment by utilities would continue automatically until all valid claims are paid instead of stopping when a specified dollar amount is met.

Under the Commission's 1983 proposal no additional Congressional action would be necessary to provide funds beyond the limit, as under S.843. The Commission made this recommendation, that the Congress adopt an annual limitation on liability, only after carefully considering a range of other options, including eliminating the limitation on liability altogether and retaining a limitation on the industry's liability at some higher level than the $708 million in financial protection now provided under the Act.

In my view, proposals to retain, eliminate, or modify the limitation on liability should be judged using the following four criteria:

- Does the proposal assure full compensation to the victims of a nuclear accident?
- Does the proposal provide an assured and timely source of funds to pay public liability claims?
- Does the proposal avoid imposing the costs of an accident at a nuclear power plant on the federal government?
- Does the proposal avoid imposing a catastrophic financial burden on individual nuclear utilities?

In my view, the first of these criteria -- assuring full compensation to the victims of an accident -- should be given the highest priority.

An annual liability limit as recommended by the Commission in 1983 meets each of these four tests. Sufficient funds would automatically be available to pay all valid public liability claims. These funds would come from the nuclear utilities, and the only remaining federal role would be as guarantor in the event that a utility failed to pay its deferred premium. Substantial funding would be available to pay claims in the first year, and a flow of funds would be available in succeeding years to pay claims arising from latent injuries. Finally, by spreading the cost over succeeding years, the financial health of the utilities should not be jeopardized.

S. 843

First, let me say that S.843 contains a number of innovative features which are significant improvements over the current Price-Anderson Act including: a substantial increase in the amount of money automatically available from utilities to pay public liability claims; a third layer of protection provided by federal indemnification for damages over the initial limit on liability; an effort to keep open the possibility of additional industry financial contributions beyond the limit on initial liability; the use of a study commission to examine alternative measures for compensating accident victims after the limit is reached; borrowing authority to increase the amount of funds available to pay for early public losses; a prohibition on the use of funds to pay punitive damages; exclusion of defense costs from Price-Anderson funds; inclusion of the costs of precautionary evacuations; the adoption of a "3-year from discovery" standard in the statute of limitations waiver of defenses provision; and a provision to adjust the amount of the standard deferred premium to reflect changes in the consumer price index. These new features would substantially increase the amount of money available to pay public liability claims and would help ensure that the victims of a nuclear accident are properly compensated.

Second, S.843 goes a long way toward meeting each of the elements of the four-part test I outlined above. The bill would provide a fund of roughly $7 billion to be obtained from the utilities owning and operating nuclear power plants. The federal government would then agree to indemnify the utilities for damages resulting from an accident over and above that amount. In addition, the bill leaves open the option of obtaining additional funding to pay for damages above $7 billion from the utilities, from the federal government, or by assessing some other segment of the economy. This will help to assure that there will be full compensation to the victims of a nuclear accident. The annual limit on the amount of deferred premiums will also avoid imposing a catastrophic financial burden on individual nuclear utilities. These provisions would also provide an assured and timely source of funds -- at least for the first $7 billion. But the Commission's rather lengthy Indian Point proceeding made clear, there is a group of accidents which, although unlikely, could result in damages far in excess of $10 billion. Under the bill the federal government would indemnify licensees for liability above $7 billion, and where an accident results in damage above that amount Congress must decide how to fund any additional compensation. This third layer of protection may not meet the goal of ensuring that the federal government does not bear the burden of paying the costs of a nuclear accident. Further, while Federal indemnification will help to ensure that eventually all claimants are paid, the necessity for Congressional consideration could delay the availability of the funding.

Dealing with the question of who pays in the aftermath of a catastrophic nuclear accident will not prove to be an easy task. Indeed, one need look no further than the Congressional consideration a few years ago of proposals to fund the cleanup of Three Mile Island Unit 2 to see the difficulties in trying to construct a funding scheme after an accident has occurred. The difficult arguments concerning federal funding and funding by other utilities and their ratepayers who had no part in causing the TMI accident as well as the resulting legislative impasse are, I think, all too familiar to the members of this Subcommittee. Moreover, it is worth pointing out that the amount of money involved in the TMI-2 cleanup is far less than the additional funding which might be needed to pay public liability claims for the most severe accidents which are possible. If we should learn one lesson from the TMI-2 cleanup experience, it is that we should endeavor to establish in advance a framework for compensating the victims of a nuclear accident that will provide an assured source of full compensation for the public for all possible accident situations. The provision in S.843 which sets up a Presidential Commission to study this issue is a step in the right direction toward resolving this problem.

S.44

S.44 provides for an annual limitation on liability with no limit on aggregate liability for each nuclear incident. This is, in effect, the Commission's 1983 proposal and would accomplish each of the policy goals of the Price-Anderson Act I outlined above. It would also provide the useful addition of a somewhat higher deferred premium amount coupled with an increase in the annual deferred premium to account for inflation.

However, the bill also provides that the Commission is to adjust the deferred premiums due from individual utilities based on the utilities' safety performance. The top ten percent, as identified by INPO or some other body of experts, are to receive a discount of 20% and the bottom ten percent are to pay 20% more of the amount of the deferred premium. Identifying the differences in individual utility performance, recognizing the best performers, focusing needed attention on the poor performers, and providing incentives for improved safety performance are laudable goals, and I support initiatives to accomplish them. However, I am not sure that the Price-Anderson system is the appropriate place to address this issue. The purpose of the system is to ensure a source of funds to compensate the public in the event of a nuclear accident. It is in effect a no-fault insurance scheme which spreads the cost of an accident uniformly over the entire nuclear industry. To inject a new element into the process, safety performance, will likely complicate the process of assessing and collecting the deferred premiums. It could engender lengthy disputes over placement on the list (the bill provides for an opportunity for a hearing on this issue), which could in turn make it more difficult to ensure a timely source of adequate funding to compensate the public. I would therefore recommend that this feature of S.44 be eliminated.

Amendment No. 3238

The Commission has also been asked to comment on Amendment No. 3238 which was proposed as an amendment to S. 1225 in the last Congress. That proposal contains some improvements over the present Price-Anderson Act such as: an increase in the amount available for compensation; borrowing authority to increase the amount of funds available to pay early public losses; a prohibition on the use of funds to pay punitive damages; and, inclusion of the costs of precautionary evacuations. However, the proposal contains an absolute limit on the aggregate liability of the nuclear industry. Such an absolute limit is not the best way to accomplish the four goals I outlined above. Retaining the liability limit would limit the financial impact of a nuclear accident on the utilities owning and operating nuclear power plants, but it would also provide insufficient funds to pay all the valid claims of the victims of some nuclear accidents. While the roughly $6.5 billion available under the Amendment is much better than the $708 million now available under the Act, it may not be sufficient to cover the costs of all possible nuclear accidents. It would, thus, not automatically provide funds sufficient to compensate fully all victims. Congressional action would be necessary to provide additional funding. This has the drawbacks I discussed in relation to S.843 with one additional problem. Amendment 3238 makes it difficult and perhaps even impossible to obtain further funding from the nuclear industry. Thus, in addition, it does not meet the test of ensuring that the federal government will not have to bear the burden of compensating the victims of an accident.

A further concern is that, with a fixed liability limit, some judgment would have to be made on how much of the available funds should be set aside to pay future claims for latent injuries when those injuries become apparent. Apportioning of the available funds has the potential to short-change either the victims with immediate injuries or those with latent injuries, or both.

As the Commission responded in its report to the Congress, these disadvantages argue against retaining the absolute limit on liability and in favor of the annual liability approach.

Conclusion

Adoption of either S.44 or S.843 would significantly advance the public policy goals of the Price-Anderson Act. Each is an innovative method of ensuring that there will be full compensation to the public in the event of a nuclear accident. Both bills deserve careful consideration. However, since S.44 is closest to the Commission's 1983 recommendation, my personal preference would be for that approach.

STATEMENT OF
DR. A. DAVID ROSSIN
ASSISTANT SECRETARY FOR NUCLEAR ENERGY
U.S. DEPARTMENT OF ENERGY
BEFORE THE
SUBCOMMITTEE ON NUCLEAR REGULATION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
U.S. SENATE

APRIL 30, 1987

Mr. Chairman, it is a pleasure to be here today to discuss extending and amending the Price-Anderson Act.

The Price-Anderson Act is a forward-looking mechanism designed to assure the American public that their claims for injury will be promptly addressed and paid in the event of a major nuclear incident. Price-Anderson is a key factor in assuring the continued participation of the private sector in Department of Energy (DOE) nuclear programs and activities as well as ensuring the continued viability of this Nation's commercial nuclear power operations. The Department strongly supports a reasonable extension of the Act.

IMPORTANCE OF PRICE-ANDERSON TO DOE OPERATIONS

The unique umbrella protection provided by Price-Anderson continues to be invaluable in the conduct of the Federal Government's nuclear activities. The Department is highly dependent on products and services offered by various businesses, professional organizations, educational institutions, and other entities. Without continuation of the Price-Anderson Act, contractors at all levels may well refuse to continue doing business with the Department, including those organizations with which the Department contracts to manage major Government-owned installations.

Price-Anderson balances the limited liability of DOE contractors (or nuclear plant operators for licensed facilities) against certain, rapid, and widely available compensation to the public who may be injured in the unlikely event of a major nuclear incident. The term "limitation on liability" is frequently misunderstood in that it does not represent an absolute limitation on either liability or claims that may be paid as a result of a nuclear incident. Rather, exceeding the statutory threshold would trigger Congressional review of the incident to determine how best to proceed, based on the facts and circumstances of the accident. Congress has wisely and appropriately reserved to itself a final review of any incident which exceeds the statutory threshold in order to determine actions that may be required to further protect the public against the consequences of a catastrophic nuclear incident.

In addition, Price-Anderson "channels" financial protection coverage through the prime DOE contractor to subcontractors, suppliers, and vendors who sell, design, build, test, or perform other work or services on any component of a nuclear facility or device. The Department has no other means of indemnifying contractors that would provide this unique mechanism for protecting its contractors and their subcontractors from liability claims, while providing potential claimants a mechanism for prompt and assured payment of claims.

THE NEED TO CONTINUE PRICE-ANDERSON

On August 1, 1987, Price-Anderson authority to indemnify DOE contractors and cover new nuclear facilities licensed by the Nuclear Regulatory Commission (NRC) will expire. This will have little effect on existing NRC-licensed reactors, which are covered under Price-Anderson for the life of the reactor. However, DOE will not be authorized after August 1 to indemnify its contractors under Price-Anderson in new or renewed contracts unless Congress acts now to extend this important provision of the Atomic Energy Act.

Of equal importance, a future without some Price-Anderson type of coverage would inhibit our collective ability to revitalize the nuclear power option in the near-term. The forward-looking structure and framework of the Price-Anderson nuclear insurance and indemnification system established by Congress in 1957 remains equally important today in assuring that new nuclear powerplants can contribute to meeting our future electricity needs.

KEY LEGISLATIVE PROVISIONS

In 1983, DOE and the NRC each submitted their recommendations for extending the Price-Anderson Act. The subject has been debated extensively over the past 2 years, and we have testified 7 times during that period on various legislative proposals, including those introduced during the 99th Congress.

DOE continues to support the views expressed in our prior testimony and is prepared to support compromise legislation that would extend the Act. The key elements of an acceptable framework would provide for:

- liability limits for "traditional" nuclear activities (involving DOE contractor and NRC-licensed nuclear operations) as well as for high-level and transuranic radioactive waste disposal activities;
- comparable liability limits for DOE contractors and NRC licensees;
- retention of a congressional review process to determine not only the source of additional funds, if claims would ever exceed the initial limitation on liability, but also to determine the method for providing full compensation for valid claims of the victims of a nuclear incident;
- extending the waiver of defenses provision for an extraordinary nuclear occurrence that would expressly provide coverage for high-level and transuranic radioactive waste disposal activities;
- payment of claims arising out of activities conducted under the Nuclear Waste Policy Act from the Nuclear Waste Fund;
- payment of costs incurred in investigating, settling, or defending damage claims under Price-Anderson from insurance proceeds, deferred premiums, or government indemnity funds provided under Price-Anderson; and,
- retaining a reasonable statute of limitations--no more than 30 years, with a 3-year discovery period for injury.

Additionally, Price-Anderson legislation must not include any provision that could abrogate the sovereign immunity provisions of the Federal Tort Claims Act and inappropriately permit the Government to be sued for its actions as if it were a contractor.

DOE COMMENTS ON S. 843

DOE is particularly concerned that S. 843, currently under consideration by this subcommittee, would destroy the congressional review process available under current law. Although S. 843 provides an initial limitation on liability for DOE contractors (and NRC licensees) of approximately $7 billion, based on the current number of licensed commercial reactors, Congress would be able to assess additional payments from any "persons," including those who have already made payments, to fully compensate the public in the unlikely event of a major nuclear accident.

The Department continues to strongly oppose unlimited liability for both DOE contractors and NRC licensees. The Price-Anderson system has "worked" for nearly 30 years because Congress has carefully balanced the public's desire for prompt financial protection against a nuclear incident and both the Federal Government's and the nuclear industry's concern for a "limit" on its liability. While other proposals currently under consideration in both the House (H.R. 1414) and Senate (S. 748, limited to DOE contractors) would substantially modify Price-Anderson, neither bill would destroy this essential "balance."

S. 843 would modify the congressional review process so significantly that the balance in existing law would be destroyed. S. 843 could be interpreted to provide that, if damages exceed the initial limitation on liability, Congress could decide only how to fund the liability. Courts could interpret S. 843 to permit them to continue to award damages, after the initial limitation on liability has been exceeded, under normal tort law--with a waiver of defenses in the event of an extraordinary nuclear occurrence. The result of such an interpretation could be to prevent Congress from determining whether a streamlined compensation system should be established that would preserve tax dollars for the payment of claims, rather than the payment of attorney fees and court costs. Under current law, Congress can establish an administrative system to eliminate these costs and ensure that claims could be paid on an even more expedited basis than permitted under the waiver of defenses provisions. S. 843 could be interpreted to eliminate this option currently available to Congress.

DOE COMMENTS ON S. 44

Enactment of S. 44 would also destroy the carefully crafted balance that is the hallmark of the current Price-Anderson system. S. 44 would provide for unlimited liability for both NRC licensees and DOE contractors engaged in waste-related activities. In addition to providing for unlimited liability, this proposal could abrogate the sovereign immunity provisions of the Federal Tort Claims Act and inappropriately permit the Federal Government to be sued for its actions as if it were a contractor. The Department strongly opposes both provisions.

DOE COMMENTS ON AMENDMENT 3238 TO S. 1225

Amendment 3238 was introduced in the Senate during the final days of the 99th Congress as a substitute for the two versions of S. 1225 that had been separately reported to the full Senate by the Committee on Energy and Natural Resources and the Committee on Environment and Public Works. This was an attempt to reconcile the two versions of Price-Anderson legislation so that, if time permitted, the amendment could be called up on the Senate floor for consideration. With the introduction of H.R. 5650, similar efforts were underway at roughly the same time in the House. Unfortunately, floor action did not take place in either chamber.

S. 1225, as amended by Amendment 3238, preserves the essential balance between the needs of the public, the Federal Government, and industry. However, the amendment includes a provision that would treat the Secretary of Energy as if he were a contractor in the event that certain nuclear waste activities were not undertaken by contract. Of the three bills being considered today, the Department considers that this proposed bill comes closest to meeting our objectives as cited above; however, the Department strongly opposes any provision, including the one in this proposal, that could be interpreted as a waiver of sovereign immunity.

CONCLUSION

It is important that we proceed quickly to complete legislation on a reasonable extension of the Price-Anderson Act as early as practical in this session of Congress. The certainty of continued coverage under this unique legislation is important for both the Department and its contractors. Little time is left before the August 1, 1987, expiration date to remove the uncertainty that exists in firming up contractual arrangements for activities beyond that date.

We recognize that there are differing views on liability limitations, treatment of waste activities, and other provisions of the Act that have been debated in the past 2 years. However, the time has passed for debate and the time is at hand for action to provide a continuing system of indemnification and liability protection that balances the needs of contractors and nuclear facility operators with assured protection of the public.

The Department stands ready to support this effort. We hope our testimony and comments today, plus any further assistance or information we can provide regarding specific features of proposed legislation, will enable you to favorably report needed and acceptable legislation to the Senate in the near future.

Mr. Chairman, this completes my statement. My colleagues and I are ready to respond to your questions at this time.

PRE-HEARING QUESTIONS AND ANSWERS
RELATING TO THE
APRIL 30, 1987 HEARING ON
EXTENDING AND AMENDING THE PRICE-ANDERSON ACT OF 1957
BEFORE THE
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
SUBCOMMITTEE ON NUCLEAR REGULATION
WITNESS: A. DAVID ROSSIN
ASSISTANT SECRETARY FOR NUCLEAR ENERGY
U.S. DEPARTMENT OF ENERGY

QUESTIONS FROM CHAIRMAN JOHN BREAUX

Question 1: Do you support providing full compensation to victims of a nuclear incident?

Answer: We believe that all valid claims should be paid. In the event that claims exceed the so-called "limitation" on liability for either NRC licensees or DOE contractors, Congress should continue to determine the appropriate mechanism to provide full compensation to victims of a major nuclear accident. This determination should be based on recommendations contained in a compensation plan (or plans) submitted by the President subsequent to a major nuclear accident.

QUESTIONS FROM CHAIRMAN JOHN BREAUX

Question 2: Should damages and causation continue to be determined according to established standards of state tort law?

Answer: We believe that Price-Anderson legislation should not change existing tort law beyond those changes presently provided for in the event of an extraordinary nuclear occurrence. Therefore, damages and causation should continue to be determined according to established standards of state tort law when determining liability for a nuclear incident covered by Price-Anderson. But we recognize that in the unlikely event of a catastrophe resulting in damages exceeding the Price-Anderson limitation on liability, Congress may wish to provide an administrative procedure for redress that may be at variance with state tort law.

With regard to changes in the tort system generally, we defer to the views of the Department of Justice.

QUESTIONS FROM CHAIRMAN JOHN BREAUX

Question 3: How large are the potential consequences of a nuclear accident?

Answer: DOE has not attempted to establish an upper limit of damages and the amount of money that would be necessary to satisfy claims immediately after a nuclear incident at a DOE facility. In terms of Price-Anderson coverage, the Department believes that the present limitations envisioned, coupled with a Congressional review were any incident to exceed the prior fired ceiling on payment of claims, are more than sufficient to insure that the public is protected.

Establishing the potential damages and amount of money that would be necessary to satisfy claims immediately after a nuclear incident at a DOE facility would require developing a complex model for each facility. This would include DOE facilities that involve reactor operations as well as the larger number of DOE facilities involved in nuclear-related activities. Each model would then have to be used to estimate the damages and the claims resulting from a specific incident and each model would have to be used to analyze each type of incident.

Estimating damages through modeling is a methodology that would require making a large number of assumptions about the

Answer 3 (continued): type of incident that could occur and the complex chain of events that could follow. It also would require making assumptions about hundreds of variables, e.g., atmospheric conditions, population density, operator response, emergency plans in place, and population response. Hundreds of scenarios would have to be developed and analyzed to establish a range for damages resulting from a nuclear incident. This approach would then have to be repeated for each DOE nuclear facility.

Such an exercise would only lead to a very wide range of values for the damages resulting from a nuclear incident that would be of very little value in helping to establish a liability limit.

In addition, it is important to recognize that there are insufficient actuarial or statistical bases for associating dollar value with off-site radiation releases, especially of a low-level nature. The assumptions used to arrive at an estimate of damages would be highly conjectural.

In a September 1981 hearing before the House Science and Technology Subcommittee on Energy Research and Production, former Deputy Secretary of Energy W. Kenneth Davis explained the Department's position in the following manner:

Answer 3
(continued):

> "...(t)here have been a whole series of studies...trying to assess the possible damages as the result of various kinds of nuclear incidents.
>
> These have been followed by a whole series of... speculations. It all depends on your assumptions, how serious you think the occurrence might be, and what its probability is. The result is we have ended up over the years with enormous ranges of estimates of what the potential consequences might be, a very great degree of imprecision and wide ranges in individual studies, a great deal of discussion about the validity of the studies, and I would say that the odds on anybody being able to come up with a definitive figure are extremely remote. We simply don't have a methodology or a way of arriving at the figures nor the criteria by which one ought to pick the figure."

DOE believes that a process designed to satisfy claims by making a large fund immediately available, coupled with congressional review if such a fund is ever exceeded, represents a reasonable, appropriate, and balanced approach.

QUESTIONS FROM CHAIRMAN JOHN BREAUX

Question 4(a): Do you believe that the potential consequences of a nuclear accident are such that providing full compensation to the victims would likely cause economic hardship or severe disruption to the sources of funding for the accident that are specified in S. 44?

Answer: We believe that S. 44 may cause economic hard-ship or severe disruption to the sources of funding claims in the event of a nuclear accident.

Enactment of S. 44 would require that utilities pay $10 million to $15 million per year per reactor until all claims are paid. This could represent over $1 billion per year for an indeterminate period from nuclear utilities. Such a requirement could have a significant financial impact on these utilities.

A utility would have no way of predicting its long-term financial exposure and the ultimate impact on stockholders or ratepayers in the event a major nuclear accident were to occur in this country. In the unlikely event of a major accident, the payment of claims under Price-Anderson is made under a "no fault" system. The large utility in our example would be required to pay large sums of money until all claims were paid, irrespective of the fact that it may not have been that utility that owned and operated the commercial facility involved in a major accident.

Answer 4(a)
(continued):

Unlimited payments for waste-related accidents could cause a significant impact on the Treasury. Such a requirement could affect adversely congressionally-mandated budget targets, especially if the Nuclear Waste Fund were depleted. There is nothing peculiar to waste-related activities that would warrant such separate treatment, i.e., the imposition of so-called "unlimited" liability. If a statutory threshold (or "limit" on liability) were ever exceeded, Congress should continue to determine the appropriate mechanism to satisfy all valid claims.

QUESTIONS FROM CHAIRMAN JOHN BREAUX

Question 4(b): Do you believe that the potential consequences of a nuclear accident are such that providing full compensation to the victims would likely cause economic hardship or severe disruption to the sources of funding for the accident that are specified in S. 843?

Answer: S. 843 would provide for essentially unlimited liability for both NRC licensees and DOE contractors.

S. 843 would modify the congressional review process so significantly that the balance in existing law would be destroyed. S. 843 could be interpreted to provide that, if damages exceed the initial limitation on liability, Congress could decide only how to fund the liability. Courts could interpret S. 843 to permit them to continue to award damages, after the initial limitation on liability has been exceeded, under normal tort law--with a waiver of defenses in the event of an extraordinary nuclear occurrence. The result of such an interpretation could be to prevent Congress from determining whether a streamlined compensation system should be established that would preserve tax dollars for the payment of claims, rather than the payment of attorney fees and court costs. Under current law, Congress can establish an administrative system to eliminate these costs and ensure that claims could be paid on an even more expedicted basis than permitted under the waiver of defenses provisions.

Answer 4(b) (continued): S. 843 could be interpreted to eliminate this option currently available to Congress.

QUESTIONS FROM CHAIRMAN JOHN BREAUX

Question 4(c): Do you believe that the potential consequences of a nuclear accident are such that providing full compensation to the victims would likely cause economic hardship or severe disruption to the sources of funding for the accident that are specified in Amendment 3238 (to S. 1225, introduced last year)?

Answer: Amendment 3238 to S. 1225 would establish a limitation on liability of approximately $7 billion for both NRC licensees and DOE contractors. This figure would change according to the number of commercial reactors licensed by the NRC.

For NRC licensees, NRC would be able to issue obligations to the Secretary of the Treasury if the rate of paying deferred premiums ($12 million per reactor per year up to a maximum of $60 million) is such that claims cannot be promptly paid. The initial limitation applies to all DOE activities, including those associated with nuclear waste activities. Claims resulting from a civilian nuclear waste accident would be paid from the Nuclear Waste Fund. If the statutory liability limit were exceeded, Congress would take action to provide full compensation based upon a compensation plan or plans submitted by the President.

Answer 4(c) (continued): The provisions contained in Amendment 3238 would not appear to cause undue economic hardship or severe disruption to the sources of funding in providing full compensation. Both DOE contractors and NRC licensees would have the same liability limitation so that injured parties would be compensated, irrespective of the cause of that injury. Most importantly, the congressional review process is retained, so that Congress would determine the appropriate mechanism to pay claims that exceed the liability limit, based on the facts and circumstances of the accident. We consider this to be the most appropriate course of action in the unlikely event of a major accident that caused damages in excess of the statutory liability limit.

QUESTIONS FROM SENATOR WARNER

Question 1: Isn't it true that the liability provided under the Price-Anderson system is not the maximum amount of funds that would be available to compensate the public for losses from a nuclear accident?

Answer: That is correct. If the aggregate liability of either Nuclear Regulatory Commission licensees or Department of Energy contractors for a single nuclear incident is exceeded, Congress (under Section 170(e) of the Atomic Energy Act, as amended) would thoroughly review the particular incident and take whatever action is deemed necessary and appropriate to protect the public from the consequences of a disaster of such magnitude.

QUESTIONS FROM SENATOR WARNER

Question 2: And that none of the bills before the Committee explicitly impose a ceiling on funds under Price-Anderson? There is actually unlimited liability in terms of complete coverage under the Substitute Amendment to S. 1225 where funds exceeding $6.5 billion immediately available for compensation would be determined by Congress. And there is no limit on liability that Congress may provide?

Answer: None of the bills before the Committee explicitly impose an absolute ceiling on the funds that may be available to pay claims. The term "limitation on liability" is frequently misunderstood in that it does not represent an absolute limitation on either liability or claims that may be paid as a result of a nuclear accident. Rather, exceeding the statutory threshold would trigger Congressional review of the incident to determine how best to proceed, based on the facts of and circumstances of the accident. Congress has wisely and appropriately reserved to itself a final review of any incident that exceeds the statutory threshold in order to determine actions that may be required to further protect the public against the consequences of a catastrophic nuclear incident.

Under Amendment 3238 to S. 1225, within 90 days after any determination by a court that the statutory threshold will be exceeded (by either an NRC licensee or DOE contractor), the President would be required to submit a compensation plan (or

Answer 2 (continued):	plans) to Congress with recommendations as to the relief that Congress should consider providing. There is no limit to the monetary relief that Congress may subsequently elect to provide.

QUESTIONS FROM SENATOR WARNER

Question 3: Dr. Rossin, under Price-Anderson commercial utilities are required to obtain the maximum amount of private insurance available under the first layer of compensation. Should DOE contractors also be required to obtain private insurance for their activities covered under Price-Anderson rather?

Answer: DOE contractors involved in nuclear activities are usually paid on a cost-reimbursement basis. If these contractors were required to obtain private insurance, they would pass the insurance premium cost directly to the Government. Since the Federal Government has sufficient financial resources to pay large liability claims, it is more economical not to reimburse a contractor for insurance premium costs. The Government's position has historically been that it would be less expensive in the long-term to bear the risk than to insure it. Moreover, it is unlikely that liability insurance would be available from private nuclear insurance pools. From the private nuclear insurance pool perspective, the variation in hazard and the classified nature of the many contractual operations mean that normal underwriting, rating, and claims practices cannot be used. Since no credible risk-based premium can be established by private insurers, any insurance program would have to be almost wholly "cost-plus." As a result, a private insurance market for government

Answer 3 (continued): contractor activities is not likely to arise. For large plant licensees (i.e., commercial nuclear powerplants with greater than 100,000 electrical kilowatts of installed capacity licensed by the Nuclear Regulatory Commission), the maximum amount of liability insurance available from private nuclear insurance pools is currently $160 million.

QUESTIONS FROM SENATOR WARNER

Question 4: Before, or after the Price-Anderson system was established in 1957, has the Department of Energy always fully covered to activities of their contractors, even in cases of gross negligence or willful misconduct?

Answer: Prior to the enactment of the Price-Anderson Act in 1957, the concept of affording the public a special legal avenue for compensation for loss or damage due to nuclear incidents was not in use. However, in 1942, the Manhattan Engineering District recruited industrial and other organizations to construct and operate the Government's nuclear facilities. Those organizations sought contractual protection against the risks involved in such activities and indemnity provisions were included in the contracts for construction and operation of these facilities. When the operations of the Manhattan Engineering District were transferred to the former Atomic Energy Commission (AEC) in January 1947, the AEC assumed this responsibility under contracts that contained such indemnity provisions.

Since insurance of the type normally available to industrial enterprises was not obtainable against the risks involved in atomic energy activities, and considering the fundamental policy of Government self-insurance, the AEC continued to indemnify the original operating contractors and to extend

Answer 4
(continued):

similar indemnification to new contractors engaged in the operation of AEC facilities involving nuclear hazards.

In general, the indemnity agreements negotiated by the AEC followed the broad lines of the earlier indemnity agreements. In most cases, they did not extend to contractor losses, expenses, or damages resulting from the willful misconduct or bad faith of a corporate officer or general manager.

Since 1957, the Price-Anderson contract indemnity system has been in use to protect the Government contractor and others from the risk of liability for a nuclear incident. Price-Anderson permits DOE to indemnify its contractors engaged in activities involving the risk of a substantial nuclear incident without reference to any exception based upon misconduct or bad faith of the contractor. This feature of Price-Anderson was intended to assure financial protection of the public in the case of a nuclear incident whether or not it resulted from the misconduct of a contractor.

Payments or reimbursements with regard to non-nuclear, third-party liability losses and expenses generally are covered through a reimbursable costs provision. As was the case prior to the enactment of Price-Anderson, costs and expenses

Answer 4 (continued):	arising out of the bad faith or willful misconduct of specified top officials are considered unallowable.

QUESTIONS FROM SENATOR WARNER

Question 5:	Does the Department have any authority to hold its contractors liable for accidents where it can prove gross negligence or willful misconduct was involved?
Answer:	Yes. Typically, the Department's contractors can be held liable for non-nuclear accidents where such accident is found attributable to the willful misconduct or bad faith of a corporate officer. Two specific contract clauses required by the Department's acquisition regulations address this issue:

1. Property (DEAR 970.5204-21). Paragraph (f) of this clause states:

   "(t)he contractor shall not be liable for loss or destruction of or damage to government property in the contractor's possession unless such loss, destruction or damage results from willful misconduct or lack of good faith on the part of the contractor's managerial personnel, or unless such loss, destruction or damage results from a failure on the part of the contractor's managerial personnel to take all reasonable steps to comply with any appropriate written directive of the contracting officer to safeguard such property..."

2. Allowable Costs and Fixed-Fee (DEAR 970.5204-13). Paragraph (e) (17) of this clause (in the listing of unallowable costs) states:

   "(l)osses...(which) result from willful misconduct or lack of good faith on the part of any of the contractor's directors, corporate officers, or supervising representatives of the contractor, as defined in Clause --- of this contract."

x x x

Testimony of
Washington State Governor Booth Gardner
Relating to Federal Policy On Liability for Damages from Nuclear Incidents
Before the
Subcommittee on Nuclear Regulation
# of the
Committee on Environment and Public Works
United States Senate

406 Dirksen Building
Washington, D.C.
April 30, 1987

Chairman Breaux and Members of the Subcommittee:

Thank you for the invitation to testify. I am honored that you desire to obtain my views on the extremely important issue of federal policy pertaining to compensation for damages arising from nuclear incidents. It is with pleasure that I present them today.

I became Governor of Washington in January, 1985. Shortly after my inauguration, I began to address various aspects of nuclear power with special emphasis being given to the disposal of high-level radioactive waste. This emphasis was, of course, brought about by the United States

Department of Energy's selection of the Hanford site in Washington as a potential site for the nation's first deep-geologic high-level waste site.

Over the past two years I have worked on a national basis with many governors and other state officials to develop a consensus as to the fundamental elements of a federal nuclear incident liability policy for the disposal of high-level radioactive waste. Four fundamental elements emerged from that effort. I commend them to your attention.

First, the foundation policy should be the concept of strict liability (liability regardless of fault) with regard to all injuries caused by nuclear incidents arising from the implementation of the repository program of the Nuclear Waste Policy Act and other similar high-level and transuranic nuclear waste disposal programs.

Second, federal policy should provide for full compensation, through fully funded financing sources, for all damages and injuries obligated to be paid under the federal policy of strict liability. No person or entity should be precluded from recovering compensation based upon any form of statutory "cap."

Third, the procedure for obtaining moneys under the strict liability - full compensation elements, just described, should be as red-tape free as is reasonably attainable.

Fourth, the federal government should be directly liable for all damages arising from nuclear incidents occurring in the context of the high-level waste repository disposal program of the Nuclear Waste Policy Act (NWPA). Such an approach, which departs from the approach of the present Price-Anderson Act, is clearly supportable where the United States has, under the NWPA program, not only ownership and actual control of the wastes but full regulatory authority over these materials as well.

Against this backdrop of foundation guideposts, several of the bills now pending in the Congress, including S. 44, S. 748, and S. 843, among others, have been examined. In addition, we have noted Amendment No. 3238 of the last Congress. None of the bills satisfies the four elements just described. For example, none includes a direct federal government strict liability concept along the lines just described. Likewise, none of the bills provides that the concept of strict liability apply to all nuclear incidents arising during the implementation NWPA's high-level waste disposal program. (The "waiver of immunity" of the various bills currently being considered, which some characterize as a strict liability feature, only applies to "extraordinary nuclear occurrences" as defined by the existing Price-Anderson Act.)

This is not to say, however, that the bills presently being considered by the committee are without merit. To the contrary, various elements of these bills have considerable attraction. Among them, S. 843 has drawn our special attention because of its full-compensation for damages approach, i.e. no cap on federal liability. The concept of S. 843, as described by Senator Stafford at the time of the bill's introduction, deserves very serious consideration.

As you proceed with your deliberations, I hope you will consider the following issues:

1. Coverage of United States Department of Energy Activities. Our view is that the Department of Energy should be treated as a contractor for all activities it performs directly (rather than through a contractor) as to high-level waste disposal activities. Note section 9 of Amendment No. 3238 of the last Congress and section 7 of S. 748.

2. Statute of Limitations on Filing Claims. We support the so-called "discovery" of the injury rule, i.e., the statutory time for filing a claim runs from the date of the discovery of an injury for a discrete time period, such as three years. Note section 10 of S. 843.

3. Indexing. Some form of inflation indexing, relating to the calculation of such matters as annual retrospective premiums and nuclear waste fund contributions, should be included. See e.g. section 15 of S. 843.

4. Emergency Responses. Expenses incurred by states, local governments and other entities and persons as the result of emergency response activities should be included within the full compensation approach applicable to nuclear-incident-caused injuries.

In addition, we believe the committee should carefully consider the issue as to whether, in egregious factual situations involving, e.g., contractors' willful misconduct, the government should be able to recover from its contractors the amounts paid by the United States under indemnification agreements for compensable injuries to persons and entities. Inclusion of such a statutory recovery provision would, in all likelihood, enhance the operational safety performance of contractors in the conduct of their nuclear-related activities.

In your letter of invitation you have asked four questions. Our response follows:

Question 1. We support the "full compensation" of victims of nuclear incidents as described earlier in our testimony.

Question 2. In terms of "damages and causation" standards, we could support their establishment under federal law so long as they were consistent with the four elements previously described in this testimony. However, the basic approach of the existing Price-Anderson Act is to look to state tort law to determine liability and damages standards. Unless that basic approach is to be superseded by the establishment of federal law along the lines just discussed, state tort law should continue to control.

Question 3. We can provide little assistance, at this point, as to estimating the potential consequences of a nuclear accident because of the highly speculative nature of such an endeavor. Even the most recent federal studies, by the Nuclear Regulatory Commission in the mid-1970s and by the General Accounting Office last year, have been unable to reach definitive conclusions. The Chernobyl tragedy, which has turned Europe into a nuclear-incident impact laboratory, may well provide the most discrete answers yet attainable.

Question 4. We doubt that a "full compensation" policy will likely cause economic hardships either for the United States or a utility. As to the United States, Congress has complete and continuing control, through the appropriation process, over how and when federal dollars are to be made available to satisfy obligations incurred under a full compensation policy. In terms of impacts on utilities, Congress can certainly design payment or repayment approaches that would buffer undue economic burdens placed on a utility. The reduced interest, extended-term loan approach of S. 843 is one example. See e.g. section 2(c), S. 843.

I conclude by urging you to proceed, carefully but with expedition, to report a federal nuclear incident liability bill that contains concepts of strict liability and full compensation for all nuclear incident-related injuries. Most importantly from our state's standpoint, with the heavy concentration of nuclear power production facilities located in and high-level wastes stored at Washington's federal Hanford Reservation, any new legislation must apply not only to both commercial reactor and defense activities, but to all waste treatment and disposal activities related thereto as well.

Thank you, once again, for the opportunity of presenting my views. In light of the importance of the issues involved, I trust you will provide my state with the full opportunity to present further views as you pursue your deliberations.

Subcommittee on Nuclear Regulation

Committee on Environment and Public Works

April 30, 1987

Statement of

James H. Davenport
Special Deputy Attorney General
State of Nevada

Chairman Breaux, Senator Reid, members of the Subcommittee, I am James Davenport, appearing before you today on behalf of Nevada Attorney General Bryan McKay. Thank you for the opportunity to address the subcommittee on an issue potentially so significant to the State of Nevada and its citizens: ultimate assignment of the risk of development and operation of the federal government's high-level nuclear waste repository.

The Price-Anderson Act, the more encompassing topic of this hearing, was, of course, originally crafted to encourage the investment of private enterprise capital in the nuclear energy option, while at the same time guaranteeing some, perhaps complete, recovery for persons injured by nuclear accidents. The device utilized to accomplish this two-fold objective was a limit on the "aggregate" liability of all parties with potential liability exposure arising from a nuclear incident. Though no similar policy basis seems to have existed for inclusion of federal government nuclear contractors within the scheme, the Price-Anderson Act today nevertheless includes them and the device of limited aggregate liability today pertains to them as well.

Now enters the Nuclear Waste Policy Act of 1982, proposing to locate and construct major facilities for storing or disposing spent nuclear fuel or high-level radioactive waste in a way which will perpetual the nuclear option, garner public confidence and be environmentally responsible, policy purposes surprisingly similar to those for which Price-Anderson was originally enacted. But now the device of limited liability has become counterproductive to those same purposes. Nuclear utilities will bear no liability exposure for federal contractor nuclear waste incidents, as title and possession to those materials will have transferred to the federal government, pursuant to the NWPA. The public will perceive that it will not be made whole if injured and some, if not all, of the risk of environmental damages will be assigned to the host state if nuclear waste facilities don't perform the isolation task for which they are selected and constructed.

Two observations are worthy of note: First, inasmuch as the Price-Anderson Act permits the U.S. Department of Energy to indemnify, that is, pay for its nuclear contractors' nuclear liabilities, it is really governmental exposure, rather than private exposure, which is ultimately at issue. (Nuclear contractors have correctly identified a potentially significant cash flow problem which Congress should address, but that is an issue of mechanics, not legal responsibility.) Second, a limitation on liability is the exception, not the rule. Under the common law of the states, the law by which tort liability is determined, all parties are liable to the full extent of the actual injury they cause. It should, therefore, not be alarming to speak of "unlimited liability". The synonym for that phrase is "normal liability". Unlimited, or normal, liability does not necessarily encompass punative or exemplary damages, however, as those reflect concepts additional to the basic concept of liability, that being the duty to make the injured party whole.

S843, Senator Stafford's bill, addresses both the potential liability of Nuclear Regulatory Commission licensees, (nuclear reactors), and U.S. DOE nuclear contractors. There are no nuclear reactors in Nevada and Nevadans consume no nuclear power. Consequently, I do not address the propriety of maintaining or altering the devices of limited liability in that context. But Nevada's Yucca Mountain site is a site recommended for characterization for a high-level nuclear waste repository. If the Congress wants to declare its faith in the potential for success of the nuclear waste program it must remove the limited liability device from the program. Senator Stafford's bill does that and we support it.

S843 recognizes an important distinction between the legal obligation to make an injured party whole, i.e. liability, and the economic ability to make an injured party whole. A limitation on the first precludes complete recovery notwithstanding economic ability, while sending the wrong message about the federal government's confidence in the nuclear waste program. A limitation on the second, as contained in S843, recognizes the economic limitations of available funds, but maintains the injured's right to eventual full recovery, which must then be realized from fiscal resources yet to be discovered. This distinction is missed by all other current Price-Anderson bills with the exception of S44, Senator Moynihan's bill.

To reconcile this distinction, S843, like H.R. 1414, establishes a mechanism of Department of Energy and Congressional action to identify and appropriate resources necessary to make recovery complete. This mechanism is somewhat cumbersome but adequate.

The Price-Anderson Act mandates waiver of defenses based on governmental immunity in cases of "extraordinary nuclear occurrence". S843 permits similar provisions to be included in indemnification agreements covering all nuclear waste incidents.

This provision should be made stronger, mandating the inclusion of such terms in all nuclear waste indemnification agreements. This change would conform the position of all DOE contractors in Nevada as the defense of governmental immunity may not now be asserted by U.S. DOE contractors who detonate nuclear explosives underground.

The governmental immunity defense raises the other important issue omitted by S843 and all other Price-Anderson bills. Neither the Price-Anderson Act nor S843 address the issue of the liability of the federal government for its own actions. Suppose the Department of Energy chooses Yucca Mountain, Nevada for development of a nuclear waste repository, builds it, puts nuclear waste in it, and it leaks. Assume that the cause of the leak is the Department's having selected a site which was not worthy of development and that DOE contractors either have or have not attempted to engineer around site deficiencies. Certainly the State of Nevada or its citizens should not bear the costs of halting or repairing environmental degradation. But the state's only legal recourse would be through the Federal Tort Claims Act. And the federal government's sovereign immunity would certainly be interposed. In order to resolve this problem, Congress should enact legislation, perhaps better placed in the Nuclear Waste Policy Act which would provide:

"The United States shall be liable to the same extent as any other tortfeasor to any person injured or suffering loss as a result of action taken by the Secretary pursuant to the Nuclear Waste Policy Act of 1982."

Recently, members of this body have suggested creating incentives to states to encourage their receptivity to siting a nuclear waste repository. Yet those proposals fail to include the single greatest incentive which it is incumbent upon every responsible state official to seek: an assurance that the federal government, including its contract agents, will be responsible for its own misfeasance. Nevada has repeatedly asked for such an assurance. There is no better, current opportunity for Congress to declare federal responsibility for its nuclear waste activities than to include such a provision in the Price-Anderson bill now before the Subcommittee.

PRICE-ANDERSON CAMPAIGN
•Victim Compensation
•Corporate Responsibility
•Taxpayer Protection

Testimony of Keiki Kehoe
Environmental Policy Institute

and

Kathleen Welch
U.S. Public Interest Research Group

on behalf of

Environmental Action
Environmental Policy Institute
Friends of the Earth
Natural Resources Defense Council
Nuclear Information and Resource Service
Public Citizen
Sierra Club
Union of Concerned Scientists
U.S. Public Interest Research Group

before the

Subcommittee on Nuclear Regulation
of the
Committee on Environment and Public Works

April 30, 1987

Thank you for this opportunity to present our views on renewal of the Price-Anderson Act, one of the most pressing issues before your Committee this year.

Our organizations strongly believe that the public deserves a balanced and comprehensive nuclear accident policy. We believe such a policy would accomplish three principal goals: first, it would reduce the possibility of an accident by assuring high standards of industry accountability; second, it would provide full compensation for the public in the event of an accident; third, it would protect taxpayers from paying costs that private industry can afford.

Attached to this statement is a copy of our testimony from this Committee's Price-Anderson hearing last session. This attachment provides a comprehensive statement of our concerns regarding Price-Anderson renewal and bills that were before Congress last year.

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The legislative proposal which best satisfies our goals of compensation and industry accountability is H.R. 2141, recently introduced by Congressman Dennis Eckart (D-OH) and forty other House Members. We expect that similar legislation will be introduced in the Senate soon.

There are currently two bills before this Committee, S.44, introduced by Senator Moynihan, and S.843, introduced by Senator Stafford. In addition to these bills, we have been asked by the Chairman to comment on Amendment 3238, as printed in the Congressional Record on October 6, 1986.

Of these three proposals, S.44 (which is based on the NRC's 1983 recommendation to Congress) contains the most appropriate compensation provisions. We fully support the principle that Congress should decide now, before an accident, that the nuclear industry -- and not the victims or taxpayers -- should be responsible for providing accident compensation. While S. 843 goes further than Amendment 3238 in promising compensation beyond the liability cap, both bills arbitrarily limit industry liability at a point that we do not believe is responsible or appropriate.

There are two fundamental questions that this Committee should address as it considers Price-Anderson renewal.

1. How can we make sure that those who are responsible for safety decisions throughout the nuclear industry are given compelling incentives to "stay awake" on the job and avoid careless mistakes?

2. How can we structure a compensation program that provides an ongoing source of funds and protects taxpayers from being the ultimate insurers for this private industry?

We believe that both of these goals can and should be accomplished through comprehensive Price-Anderson reform. Our testimony today will focus on these two major issues of accountability and compensation.

CONTRACTOR ACCOUNTABILITY

Under current law, S.843 and Amendment 3238, the financial risks of a nuclear accident are borne by the public, the Federal Treasury and nuclear utilities.

S. 843 and Amendment 3238 limit the financial responsibility of nuclear utilities to post-accident assessments of approximately $60 million per plant, spread out over a number of years. The Treasury's financial responsibility for DOE accidents is limited to roughly $7 billion, unless Congress passes a bill to provide additional funds. The public's exposure to potential financial losses is not limited.

S.44 limits post-accident payments to $10 million per year, but requires assessments for as many years as necessary to pay claims. Under this approach, the liability of nuclear utilities is limited annually; the financial exposure of the public and the Federal Treasury is minimized.

Under each of these approaches, there are a whole set of potentially responsible parties who are "missing" from the equation. These are the nuclear contractors.

* Nuclear contractors are totally exempt from any liability for damages to the public.

Nuclear contractors are the companies that design, build and supply parts for nuclear power plants. They are also all of the federal contractors that carry out the Department of Energy's nuclear waste, weapons and research programs.

These nuclear contractors are not required to purchase nuclear liability insurance and are fully indemnified by the federal government. In the event of a nuclear accident, these companies are not responsible for paying a single penny toward public compensation.

This exemption from liability even covers accidents that are caused by gross negligence, bad faith or an intentional disregard for federal regulations.

* According to representatives of the Justice and Defense Departments, exempting companies from liability may reduce incentives for safety.

Debate over the merits of government indemnification of federal contractors was the subject of hearings in the Senate Judiciary Committee last session. Testimony from government and other expert witnesses on Senator Grassley's bill (S.1254, indemnification of federal contractors) suggest a direct link between financial responsibility and a contractor's performance. [1]

One of the fundamental objections raised by the Department of Defense to the Grassley bill pertained to safety:

"We are concerned that blanket indemnification may reduce the contractor's incentive to assume responsibility for the performance of their products by shifting part or all of the liability onto the Government." [2]

Similarly, the Department of Justice testified that:

"...indemnification removes the safety incentive created by the tort system. To the extent liability can be passed to the government, neither the contractors nor the insurers have a financial interest in ensuring that a product is designed and made with the safety of the user in mind." [3]

The Grassley bill would have provided federal indemnity on a much more limited basis than Price-Anderson. Specifically excluded from coverage were "claims or losses caused by the willful misconduct or lack of good faith on the part of any of the contractor's or subcontractor's directors or officers or principle officials." [4] The Price-Anderson Act liability exemptions are without exception.

The connection between liability and safety was specifically acknowledged by T. Richard Brown of TRW, Inc., testifying on behalf of an alliance of contractors. Pointing to the willful misconduct exemption, Mr. Brown stated:

"This caveat ... should defuse any fear that indemnification might encourage contractors to disregard safety." [5]

In response to a question about safety incentives, Mr. Brown further explained, "...if a contractor was careless, they would face the exclusion under the statute for gross negligence and willful bad faith." [6]

If the threat of liability has a role to play in the conduct of DOD contractors, logic would suggest that it would also play a role in the conduct of DOE contractors.

Nuclear risks have always been singled out for special treatment. Given the ultrahazardous nature of nuclear activities, one would expect that the standards of care would be at least as high, if not higher than non-nuclear contractors. Instead they appear to be lower.

* There are serious questions about the DOE's ability to assure safety in its contractors' operations.

The Department of Energy, does not have the authority to impose fines or penalties on its contractors. According to DOE, its contractors are responsible for complying with Federal and State environmental, health and safety laws; compliance with these laws is one way DOE ensures that its contractors act in a manner consistent with public health and safety. [7]

However, a September 1986 GAO report indicates that DOE and its contractors have not faithfully complied with federal environmental laws. The report found that:

* 8 of the 9 facilities reviewed have groundwater contaminated with radioactive and/or hazardous substances to high levels. (In some cases solvent contamination was 1000 times or higher than proposed drinking water standards; radioactive material in groundwater is more than 400 times greater than drinking water standards in other cases.)

* 6 of the 9 facilities reviewed have soil contamination in unexpected areas, including offsite locations.

* 4 of the 9 facilities reviewed are not in compliance with the Clean Water Act.

* None of the facilities have final permits for disposing of waste under the Resource Conservation and Recovery Act. [8]

Over the past several years, GAO has issued approximately 20 reports documenting unresolved safety and environmental problems at DOE nuclear defense facilities. At a recent hearing in the Senate Government Affairs Committee, J. Dexter Peach of the GAO testified that the agency has "had a long history of recommending both internal and external improvements in safety oversight at DOE's defense production activities." [9]

Unfortunately, DOE has failed to adequately implement all of these recommendations. Since 1981 GAO has issued reports recommending improvements in the safety analysis review process for DOE nuclear facilities. According to GAO, safety analysis reviews (SARs) are important because they establish "a basis for both the operator of a nuclear facility and DOE to determine that its facility can operate safely and to conclude that operating the facility does not pose an unacceptable risk to public health and safety." [10]

In a 1981 report, GAO found that "DOE had been lax in completing the safety reviews for high-hazard facilities in a timely fashion." [11] A similar GAO report released in 1983 found "DOE had made progress but that staffing limitations could delay the process for some existing facilities." [12] In a June 1986 report, GAO stated "that after an additional 2-1/2 years of effort, DOE has yet to approve SARs for some of its existing facilities." [13]

Of the eight facilities examined in the June 1986 report, SARs were not completed at three facilities, two at Savannah River and one at Rocky Flats. Additionally, this report concluded that the approaches used in the SARs to demonstrate safety differed significantly, and that the overall review process is an internal DOE function which is not sufficiently independent.

Although DOE claims that it uses the threat of reduced award fees to create incentives for safe contractor operations, the record is not clear as to how often DOE actually reduces fees, or how effective this threat is. A December 1985 GAO report examining operations at DOE's Ohio Defense Plants revealed that "contractors received sizeable fees even though ES&H [environmental, safety and health] problems existed...." [14]

It is clear that there is ample room for improvement in the safety of operations at DOE nuclear facilities. GAO's strong emphasis on "the important need for independent oversight of DOE's operations" raises serious doubts about the adequacy of DOE's self-regulation and the ability of DOE to assure the safety of its contractors' activities. According to J. Dexter Peach, "...self-regulation provides only a minimum level of public assurance that these facilities can operate safely. This minimum level, I believe is becoming more and more unacceptable to the public and the Congress as problems and issues surface in the DOE defense nuclear complex." [15]

* The absence of an insurance requirement for nuclear contractors may further weaken safety incentives.

Although the Department of Energy has the authority to require its nuclear contractors to purchase private insurance, the DOE has never exercised that authority. According to DOE, it is more efficient economically for the Department to provide direct federal indemnification of its nuclear contractors.

The decision to provide direct indemnification for nuclear contractors may make sense from an immediate economic standpoint, but it seems to ignore the potential role of insurance as a risk management mechanism.

Under existing federal indemnification programs for DOD, FAA and NASA, contractors are required to purchase commercial liability insurance.

According to a representative of the Aerospace industry, this insurance plays an important role in assuring safety:

"...the contractor has an incentive to avoid negligent behavior because his insurance rates will increase...if he doesn't act prudently. If a contractor's insurance premiums increase, that increase will reduce his profits. ... Thus, the contractor has a real economic incentive to exercise due care in contractor performance." [16]

To further emphasize this point, the Aerospace Industry Association cited a Department of Commerce study pointing out that "recent increases in the number of products liability claims, policy cancellations, insurance premiums, and average loss per claim have contributed to a situation in which manufacturers are finding it more and more difficult to obtain adequate insurance. The upshot is that many manufacturers are making stronger efforts to improve design and quality control." [17]

He went on to point to another study which concluded: "these developments compel the conclusion that products liability litigation is increasingly forcing manufacturers to improve product safety even when they are insured against claims for product injuries." [18]

Finally, the important role of insurance in regulating hazardous activities was emphasized in last year's Report of the Tort Policy Working Group, a working group composed of 10 agencies and the White House.

This report cited interference with the traditional role of private insurance as a "compelling reason" for rejecting government indemnification. "The insurance industry plays a vital role in promoting public health and safety by policing insureds to ensure that risks of injury are minimized. ... While the role of insurance in promoting public health and safety is by no means perfect ... insurance creates important health and safety incentives which cannot be lightly dismissed."[19]

The absence of an insurance requirement further insulates nuclear contractors from an important market mechanism that appears to play a significant role in regulating other hazardous industries. Because these companies are not required to purchase traditional insurance, it is even more important to compensate for the risk-management role of insurance through other mechanisms, such as a right of recovery against negligent contractors.

* Other federal contractors are not provided with federal indemnity as broad as Price-Anderson coverage.

As stated above, the Price-Anderson coverage exempts contractors from liability even if an accident is caused by gross negligence, bad faith or willful misconduct. Other laws that indemnify federal contractors, or limit specific types of liability for other industries, do not include such a sweeping exemption.

Under 10 U.S.C. 2354, the Department of Defense indemnifies certain contractors involved in ultrahazardous and nuclear activities. DOD's procurement regulations exclude coverage for willful misconduct and lack of good faith on the part of corporate officers and others who have direct responsibility for contractor operations.

Public Law 85-804, as implemented by Executive Order 10789, contains an exclusion from indemnification for intentional misconduct which is narrower than 10 U.S.C. 2354, but broader than Price-Anderson coverage.

According to a statement by Secretary Herrington, the DOE's standard indemnification policy excludes coverage of liabilities that are the result of "willful misconduct or lack of good faith." [20]

A 1984 Congressional Research Service study compared Price-Anderson coverage with other federal limits on liability. The survey of other laws included programs ranging from Superfund, the Clean Water Act, the Swine Flu Immunization program, and others. According to CRS, "Most other federal statutes strip a defendant of the liability-limitation shield under certain conditions, typically where there is willful misconduct, gross negligence, or the like." [21] (A complete copy of this CRS study is attached in Appendix A).*

* Nuclear contractors should not be exempted from liability for reckless behavior, gross negligence or willful misconduct.

Prior to the passage of the Price-Anderson Act, the indemnification agreements between the Atomic Energy Commission and its contractors included a standard exemption for losses resulting from the "willful misconduct or bad faith" of contractors. [22] Many of these contractors are the same as those doing business with DOE today.

According to the record of the 1956 hearings of the Joint Committee on Atomic Energy, the "gross negligence" exemption was dropped because committee members were concerned that members of the public would not be compensated in such instances. That problem has been corrected in H.R. 2141 this year, and the Metzenbaum bill (S.2072) last session.

Under S.2072, the mechanism for contractor accountability should not jeopardize victim compensation. Under this bill, the government would have been required to provide compensation on a "no fault" basis, similar to the current Price-Anderson system. In contrast to the current system, the government would have been required to recover compensation costs from contractors if an accident was caused by gross negligence or willful misconduct. Similarly, H.R. 2141 would allow utilities that pay into the post-accident compensation fund to seek recovery of those payments if another party, such as a nuclear vendor, was found to be at fault.

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*Retained in committee files.

* The implications of not requiring contractor accountability are enormous.

The federal government is about to embark an extremely controversial and potentially hazardous activity -- the disposal of high-level nuclear waste. Two very fundamental elements are absolutely essential if this program is going to succeed. First, there must be public confidence that the program is being carried out with the utmost attention to safety. Second, there cannot be any careless mistakes.

The Price-Anderson "blanket indemnification" for gross negligence and intentional misconduct is likely to seriously undercut whatever public confidence there might be in the program. Furthermore, we are concerned that this type of coverage may ultimately increase the likelihood of an accident.

ASSURING FULL COMPENSATION

S.843 and Amendment 3238 raise the liability limit to roughly $6.5-7 billion. Under these bills, utilities that own nuclear plants would be subject to approximately $60 million per plant, payable over a number of years. While this is considerably more than utilities would be required to pay under the current Price-Anderson Act, it is far less than they can afford.

S.44 requires utilities to pay annual $10 million deferred premiums for as many years as necessary to compensate damages. This bill is based on the NRC's 1983 recommendation to Congress. We believe that this represents responsible and appropriate public policy.

* In 1983 the Nuclear Regulatory Commission determined that the nuclear industry could afford to pay the full costs of an accident.

Instead of requiring utilities to pay a one-time post-accident assessment of $5 million per plant, in 1983 the NRC proposed a system of annual retrospective assessments. Under the NRC proposal (NUREG-0957), which was sent to Congress with the unanimous endorsement of the five NRC Commissioners, utilities would be responsible for annual assessments of $10 million per plant for as many years as necessary to compensate all public damages. These premiums would not be paid unless an accident actually happens.

By spreading the cost of an accident over a number of years, this proposal would allow the nuclear utilities to pay the full costs of accidents in a way that is both affordable and predictable.

According to NRC studies, $10 million represents approximately 2% of the annual cost of operating a new nuclear plant. [23]] The attached chart (Appendix B), shows the estimated rate impact of a $10 million per plant premium on investor-owned utilities. In most cases, the potential rate impact is significantly less than 2%.

S.843 and Amendment 3238 adopt this annual premium proposal (setting the annual retrospective premium at a level of $10 and $12 million respectively), but limit the industry's responsibility to a maximum of roughly $60 million per plant.

Because of the arbitrary limit on the amount that utilities would have to pay, these bills require a complex congressional review procedure for accidents that exceed the limit. While the intent behind the congressional review mechanism is to provide full compensation, neither bill specifically identifies a source of funds beyond the limit. S.843 appears to provide victims with a better assurance of full compensation than Amendment 3238. (A more complete discussion of the problems of the Congressional review provisions of Amendment 3238 is included in the Part II of this statement and the attached testimony.)*

*** Utilities already pay significantly more than $7 billion to insure their own property.**

Nuclear utilities currently purchase more than $1 billion of insurance to protect their own property. According to NRC and House Interior Committee reports [24], this insurance costs an average utility roughly $5 million per plant each year. In contrast to the proposed liability premiums, ratepayers pay these insurance premiums every year, regardless of whether there is an accident.

The NRC has projected that 3,193 reactor-years of commercial nuclear power plant operation are anticipated beyond 1987. This does not assume that any additional plants are ordered beyond those already under construction. [25]

If utilities spend $5 million per plant each year in premiums for on-site insurance, close to $16 billion would be paid out over the life of existing plants. If these premiums are adjusted over the years to account for inflation (or to reflect losses), ratepayers of nuclear utilities could pay significantly more than $16 billion for this insurance.

*** Utilities already assume responsibility for other fuel-cycle costs.**

Under the Nuclear Waste Policy Act of 1982, utilities are subject to a surcharge on sales of nuclear electricity to pay for the high-level nuclear waste program. Utilities currently contribute approximately $500 million each year into the Nuclear Waste Fund. As the cost of this program escalates, utilities with nuclear plants will be obligated to pay increasing amounts into the Nuclear Waste Fund. Similarly, the full costs of decommissioning nuclear plants are not yet known and will remain uncertain for the financial planners of nuclear utilities for some time to come. According to a recent Wall Street Journal article, the California Public Utilities Commission recently ruled that Pacific Gas and Electric Co. will need to put $53.6 million annually for the next 28 years to fund the dismantling of its Diablo Canyon nuclear plant. [26]

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*The "attached testimony" referred to has been retained in committee files.

PART II: OTHER ISSUES

In addition to the issues addressed above, we would like to comment specifically on six aspects of the proposals before this Committee.

1. The Third Layer:

S. 843 and Amendment 3238 rely on future Congressional action for compensation beyond the liability limit. While the third layer "promise language" in these bills goes further than current law, neither explicitly identifies a source of funds beyond the limit.

In the event of an accident involving damages above the liability limit, Section 5 of Amendment 3238 "promises" that Congress will "thoroughly review the particular incident" and "take whatever action is determined to be necessary, including approval of appropriate compensation plans, to compensate the public in full...."

On November 24, 1986, the Congressional Research Service issued a memo comparing the end-of-session House and Senate bills. According to CRS, "Both vehicles evince a stronger Congressional commitment to full compensation of claims over the liability limit, though the dependence of such compensation on appropriations acts means that actual compensation is not truly assured. In any event, one Congress can never bind a future Congress." [27]

According to a March 1986 CRS memo concerning S.1225 (the predecessor to Amendment 3238), "the section 5 representation would likely be regarded by a court as a mere statement of public policy, not binding on a future Congress faced with an actual nuclear disaster....Thus, while the subcommittee bill no doubt imposes moral pressure on a future Congress to provide compensation over the liability limit, the bill does not appear to establish any legal pressure on the Congress to do so." [28]

S.843 provides a "stronger guarantee" that victims will be fully compensated. According to Senator Stafford's introductory remarks, "This bill seeks to provide a legal right to full compensation by obligating the Federal Government to provide funding..." However, Senator Stafford went on to point out: "In the final analysis, Congress could refuse to act on compensation proposals, but that is an unlikely event because it would be breaking contractual commitments to the indemnified parties. Although the courts have no direct power to enforce judgments requiring appropriations by Congress, the moral authority of such judgments is strong."

2. Length of Extension:

S.843 extends Price-Anderson coverage for 10 years. We support this provision. The Price-Anderson Act is an important public policy issue which should be revisited at least every 10 years. Originally intended as a temporary law, each time the Act has been renewed the provisions that benefit the public have been gradually expanded; this is a process that needs to continue.

S.44 extends Price-Anderson for 15 years and Amendment 3238 extends the Act for 20 years. We strongly oppose extension of Price-Anderson for more than 10 years. It is difficult, if not impossible, to predict what the state of the nuclear industry will be 15 or 20 years from now. Since the last renewal of Price-Anderson in 1975, approximately 100 nuclear plants have been cancelled. According to the NRC, the licenses of nearly 30 plants will expire during the next 20 years [29], which will seriously erode the level of compensation. Finally, the problem of premature aging, which may increase safety problems, and other unforeseeable developments may cause even more plants to go off-line earlier than expected. These are all factors that the Congress should consider in a review of Price-Anderson during the next decade.

3. Punitive Damages:

S.843 and Amendment 3238 prohibit awards of punitive damages against federal nuclear contractors. While the intent of this amendment appeared to be an effort to shield the government from paying punitive damages, the affect of this amendment is much broader. We do not believe that the government should pay punitive damages incurred by its contractors, nor do we believe that insurance should cover punitive damage awards. But we also do not believe that nuclear contractors should be exempt from punitive damages altogether. If the actions of a nuclear contractor are so egregious that a court awards punitive damages, then that contractor should have to pay. As stated in the preceding section, we have serious concerns about the lack of accountability for DOE's nuclear contractors.

4. Compensation for High-Level Waste:

S.44 requires full compensation for accidents involving the high level nuclear waste program to be paid out of the generator-financed Nuclear Waste Fund. We fully support this provision.

S.843 requires compensation up to $7 billion to be paid out of the Nuclear Waste Fund, but it does not identify the source of compensation funds beyond the limit. When the Nuclear Waste Policy Act was passed in 1982, it was agreed that the generators of nuclear waste would be responsible for the costs of the program. An accident would clearly be a cost of the program and therefore should be paid out of the generator-financed Nuclear Waste Fund.

The compensation provisions for nuclear waste accidents in Amendment 3238 do not appear to satisfy the concerns of the affected states. The states that testified at Price-Anderson hearings during the last session of Congress explicitly stated that removal of the limit on liability, and an assurance of full compensation, is an essential element for the success of the nuclear waste program.

5. Attorneys Fees:

S.44 and Amendment 3238 allow all of the legal costs incurred by the nuclear industry after an accident to be paid out of the public compensation fund.

We believe that this provision reduces the incentive to limit legal costs and may actually encourage delays in the settlement of claims. Although it is impossible to predict just how high these costs could be, these legal expenses could substantially reduce the amount of compensation available to the public.

When Congress renewed the Price-Anderson Act in 1975, an amendment was adopted that prohibited the costs of investigating, defending and settling claims from being paid out of the "public compensation" fund. Because of a drafting error, the exclusion of these expenses only applied to the portion of compensation provided directly by the federal government. Now that the direct federal indemnity share has been phased-out for commercial accidents, these costs can be deducted from whatever funds exist in the post-accident compensation pool.

These costs should be paid by the defendants, and not deducted from the limited public compensation fund.

6. Inflation Index:

The amount of the retrospective premiums should be adjusted annually according to inflation. The income of electric utilities, as well as their expenses, rise to reflect increases in the cost of living; the annual retrospective premium should also be increased accordingly. This is particularly important if payment of damage claims are spread out over a number of years.

Amendment 3238 does not include any inflation adjustment.

S.843 includes a provision for adjusting the post-accident assessment to reflect inflation, according to the Consumer Price Index, every 5 years. S.44 requires the annual assessments to remain in constant dollars as of January 1987 and requires the Commission to adjust the maximum deferred premium for inflation as indicated by the Gross National Product deflator.

CONCLUSION

As the August 1, 1987 expiration date nears, we realize that the Congress will be under enormous pressure to renew Price-Anderson. Our organizations believe that the millions of Americans who are exposed to nuclear risks deserve a comprehensive federal nuclear accident policy.

We believe that H.R.2141 represents the most sound, balanced and responsible Price-Anderson renewal. We urge this Committee to give thoughtful consideration to this approach when you consider Price-Anderson legislation.

Notes:

1. Hearing before the Senate Judiciary Committee, Indemnification of Government Contractors, S.1254, June 11, 1985.

2. Statement of Mary Anne Gilleece, Deputy Under Secretary for Acquisition Management, Office of the Under Secretary of Defense (Research and Engineering), June 11, 1985.

3. Statement of Richard K. Willard, Acting Assistant Attorney General, Civil Division, Department of Justice, June 11, 1985.

4. S.1254, Sec.5(b)(2): For purposes of this subsection, the term 'principal officials' means any of the contractor's managers, superintendents, or other equivalent representatives who have supervision or direction of (A) all or substantially all of the contractor's business, (B) all or substantially all of the contractor's operations at any one plant or separate location in which a contract is being performed, or (C) a separate and complete major industrial operation in connection with the performance of a contract.

5. Statement of T. Richard Brown, Vice President, Law Department, Electronic and Defense Sector, TRW, Inc., June 11, 1985.

6. Statement of T. Richard Brown.

7. Post-Hearing Questions from Senator Alan Simpson for James W. Vaughan, Acting Assistant Secretary for Nuclear Energy, U.S. Department of Energy, following the October 22, 1985 Hearing of the Nuclear Regulation Subcommittee of the Environment and Public Works Committee, p.494.

8. "Environmental Issues At DOE's Nuclear Defense Facilities," (GAO/RCED-86012; September 1986).

9. Statement of J. Dexter Peach, Assistant Comptroller General, Resources, Community and Economic Development Division, Before the Committee on Government Affairs, U.S. Senate, March 12, 1987.

10. "Safety Analysis Reviews for DOE's Defense Facilities Can Be Improved," GAO/RCED-86-175, June 1986, p.10.

11. GAO/RCED-86-175, p. 12.

12. GAO/RCED-86-175, p. 2.

13. GAO/RCED-86-175, p. 12.

14. "Environment and Workers Could Be Better Protected at Ohio Defense Plants," GAO/RCED-86-61, December 13, 1986.

15. Statement of J. Dexter Peach, March 12, 1987.

16. Aerospace Industries Association Comments on Civil Division, Department of Justice Statement concerning Government Contractor Indemnification, June 11, 1985, from the Senate Judiciary Committee Hearing Record, p.99.

17. AIA comments, see above.

18. AIA comments.

19. Report of the Tort Policy Working Group on the Causes, Extent and Policy Implications of the Current Crisis in Insurance Availability and Affordability, February 1986, p.77.

20. Statement of Secretary John S. Herrington, January 8, 1986, "Environmental Policy Statement of the Department of Energy," as reported by the OCRWM Bulletin.

21. Memo from the American Law Division of the Congressional Research Service, "Industry-Protective Limitations on Liability in Federal Statutes and Treaties," March 19, 1984.

22. Governmental Indemnity Hearings before the Joint Committee on Atomic Energy, 84th Congress, Second Session, May 15, 1956, p.77.

23. "Additional Information on Retrospective Nuclear Liability Insurance Proposed by the NRC," Office of State Programs, U.S. Nuclear Regulatory Commission, April 1985.

24. House Interior Committee Report: "Price-Anderson Amendments Act of 1986," Report 99-636 and NUREG-0957, "The Price-Anderson Act -- The Third Decade," U.S. NRC Report to Congress, December 1983, Subject Report H.

25. Statement of the U.S. Nuclear Regulatory Commission before the Subcommittee on Nuclear Regulation of the Committee on Environment and Public Works, U.S. Senate, October 23, 1985.

26. Bill Richards, "Retirement of Commercial Reactors Is Stirring Debate," The Wall Street Journal, March 18, 1987.

27. Memo from the American Law Division of the Congressional Research Service, "Comparison of Leading Price-Anderson Reauthorization Vehicles at the Close of the 99th Congress," November 24, 1986.

28. Memo from the American Law Division of the Congressional Research Service, "Comparison of Three Versions of S.1225 as to Aggregate Liability Ceiling and Congressional Review of Liability Beyond the Ceiling," March 25, 1986.

29. Statement of the U.S. Nuclear Regulatory Commission, October 23, 1985.

APPENDIX B

ESTIMATED IMPACT OF $10 MILLION PER PLANT ASSESSMENTS ON INVESTOR-OWNED UTILITIES

UTILITY	ASSESSMENT* (in Millions)	RATE IMPACT** (estimated)
ALABAMA		
Alabama Power	$20	0.8%
ARIZONA		
Arizona PS	$ 8.7	0.7%
ARKANSAS		
Arkansas P&L	$23.6	1.7%
CALIFORNIA		
So Cal Ed	$27.7	0.5%
Pacific G&E	$20	0.3%
COLORADO		
PS of CO	$10	0.9%
CONNECTICUT		
Connecticut L&P	$28.6	1.8%
FLORIDA		
Florida P&L	$38.5	0.8%
GEORGIA		
Georgia Power	$19.2	0.5%
ILLINOIS		
Commonwealth Ed	$125	2.5%
Illinois Power	$8.5	1.1%
INDIANA		
Indiana & Michigan	$20	1.8%
IOWA		
Iowa Electric	$ 7	2.4%
KANSAS		
Kansas G&E	$ 4.7	1.1%
LOUISIANA		
Lousiana P&L	$11.4	0.9%
MAINE		
Central Maine Power	$ 6.6	1.2%

UTILITY	ASSESSMENT* (in Millions)	RATE IMPACT** (estimated)
MARYLAND		
Baltimore G&E	$20	1.5%
MASSACHUSETTS		
Boston Edison	$11.9	1.0%
MICHIGAN		
Consumers Power	$20	1.1%
Indiana & Michigan	$20	1.8%
MINNESOTA		
Northern States	$30	2.1%
NEW HAMPSHIRE		
PS of NH	$ 6	1.1%
NEW JERSEY		
Jersey Central	$15	1.0%
Public Service	$26.5	0.8%
NEW MEXICO		
PS of NM	$ 3	0.7
NEW YORK		
Con Ed	$10	0.2%
LILCO	$11.8	0.7%
Niagara Mohawk	$14.1	0.6%
Rochester G&E	$11.4	2.4%
NORTH CAROLINA		
Duke Power	$52.5	1.8%
Carolina P&L	$34.7	1.8%
MISSISSIPPI		
Mississippi P&L	$ 3.3	0.5%
MISSOURI		
Kansas City P&L	$ 4.7	0.8%
Union Electric	$10	0.6%
OHIO		
Cleveland Electric	$10.7	0.8%
Toledo Ed	$ 8.8	1.4%
Ohio Ed	$10.6	0.6%
OREGON		
Portland GE	$ 6.7	0.8%

UTILITY	ASSESSMENT* (in Millions)	RATE IMPACT**
PENNSYLVANIA		
Met Ed	$10	1.5%
Penn P&L	$18	0.9%
Philadelphia Electric	$37	1.4%
Duquesne	$ 7.5	0.8%
Penn. Elec	$ 5	0.6%
SOUTH CAROLINA		
Duke Power	$52.5	1.8%
Carolina P&L	$34.7	1.8%
TEXAS		
Texas Utilities	$17.6	0.4%
Houston Industries	$ 6.2	0.1%
El Paso	$ 4.7	1.3%
VERMONT		
Central Vermont PS	$ 4.3	2.5%
VIRGINIA		
Dominion Resources	$37.7	1.4%
WISCONSIN		
Wisconsin Elec	$20	1.8%

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* Assessments are based on $10 million per plant. Ownership shares are based on "Electricity From Nuclear Power," Atomic Industrial Forum, January 1986.

** Rate impact was estimated as a percentage of company revenues from sales of electricity, using 1985 financial data. Source: *The P.U.R. Analysis of Investor-Owned Electric and Gas Utilities*, 1986 Edition, published by Public Utilities, Inc.

The data in this chart was calculated by Environmental Action, February 1987.

ANSWERS TO PRE-HEARING QUESTIONS

FROM KEIKI KEHOE AND KATHLEEN WELCH

ON BEHALF OF ENVIRONMENTAL AND CONSUMER ORGANIZATIONS

1. Do you support providing full compensation to victims of a nuclear incident?

ANSWER: Yes.

2. Should damages and causation continue to be determined according to established standards of state tort law?

ANSWER: Yes.

3. How large are the potential consequences of a nuclear accident?

ANSWER: Since the 1950's, several studies have attempted to estimate the potential consequences of accidents at nuclear reactors. While each of these studies is subject to broad assumptions and uncertainties, it can be concluded that accident damages could exceed tens of billions of dollars. In 1986, the GAO estimated that damges from a catastrophic nuclar accident could reach $15 billion -- under average weather conditions. This study also noted that severe weather conditions, such as heavy rain, could increase the costs by a factor of ten.

4. Do you believe that the potential consequences of a nuclear accident are such that providing full compensation to the victims would likely cause economic hardship or severe disruption to the sources of funding for the accident that are specified in:

(a) S.44?

(b) S. 843?

(c) Amendment No. 3238?

ANSWER: We do not believe that any of the bills referred to above would cause economic hardships or severe disruption to nuclear utilities. Please see Part I of our testimony for a more detailed discussion of this question.

QUESTIONS FOR KEIKI KEHOE, ENVIRONMENTAL POLICY INSTITUTE

FROM SENATOR ALAN K. SIMPSON

1. When the Environmental Policy Institute testified before the House Interior Committee on Price-Anderson in July of 1979, your organization recommended that "if private utility assets are exhausted, a Presidential Commission should be convened to report to Congress within 90 days on the causes and extent of damages of the nuclear accident. Upon receipt of the report, Congress should act within 90 days to grant full compensation." Why did EPI support such an approach in 1979? Do you support this approach today? How does this EPI recommendation differ from the compensation plan concept and the Congressional review mechanism contained in PA 3238?

2. Are there circumstances under which Congressional review would be appropriate and effective? If so, please explain what those circumstances are. If not, what did EPI have in mind when it endorsed a Congressional review mechanism in 1979?

3. In your testimony before the Subcommittee on October 23, 1985, you stated that "[a]s we saw in the aftermath of the Texas City Disaster, Congressional compensation efforts are not always prompt or complete." Wasn't the Congressional experience with the Texas City Disaster widely known at the time that you recommended an approach calling for review of a Presidentially-submitted compensation report in your 1979 testimony? If so, what caused EPI to change its mind about endorsing a Congressional review mechanism?

4. In your testimony before the Subcommittee on October 23, 1985, you indicated that if Congress were to establish a compensation system in advance of an accident, such as the open-ended annual assessment recommended in NUREG-0957, "Congress could exercise its authority to intervene in the compensation program at any time." Please explain what you mean by this statement.

5. Under what circumstances, if any, could or would the Congress become involved in the implementation of the open-ended annual assessment approach, following an accident and after public liability awards have been adjudicated by a court of competent jurisdiction?

6. Is this approach "self-implementing" (i.e., no further action by Congress would be contemplated, required, or allowed), or would the Congress have a role in determining how the funds would be collected, from whom, in what amounts, and how they would be awarded to claimants following an accident?

7. Could the Congress step in, following an accident and after public liability claims have been adjudicated by a court of competent jurisdiction, and suspend the collection of the annual assessments, if it viewed one or more of the awards to be excessive?

8. Could the Congress suspend the collection of the assessments where, as a result of an excessive award for punitive damages, it appeared that more meritorious awards for personal injury were going to be delayed or not compensated at all?

9. Could the Congress suspend the collection of the assessments prior to all claims having been paid and, in the place of such assessments, impose an alternative mechanism for paying such claims? Could the Congress do so if it determined that such action was necessary to preserve the overall integrity of the compensation system, even though such action might have the effect of delaying or limiting payment of individual claims? Please explain. Would it make any difference whether the rights of these individual claimants had vested? At what point do the rights of individual claimants vest under the open-ended annual assessment approach proposed in NUREG-0957?

10. Could the Congress suspend the collection of assessments after a given point, and simply deny any further compensation to claimants who had already been awarded a recovery by a court of competent jurisdiction?

11. Could the Congress suspend the collection of assessments after a given point, and simply deny any further compensation to claimants who still had rights under the statute of limitations to file a suit for compensation?

12. Could the Congress increase the amount of the annual assessment? Please explain.

13. Could the Congress decrease the amount of the annual assessment? Please explain.

14. Could the Congress impose a new layer of coverage, such as a fee on nuclear-generated electricity? Please explain.

15. Could the Congress supplement the system proposed in S.44 with additional funds from vendors, architect engineers, or other suppliers engaged in the nuclear business, even though, in the absence of any such action by Congress following an accident, these entities would not be legally liable for any such claims (i.e., they would be indemnified parties under the approach recommended in NUREG-0957)? Could the Congress do this if the party or parties from whom the additional funding is sought were not legally responsible for the accident (i.e., in the absence of Price-Anderson, they would not be legally liable for the accident under traditional tort principles)? Could they do this if the party or parties from whom the additional funding is sought were legally responsible for the accident (i.e., in the absence of Price-Anderson, they would be legally liable for the accident under traditional tort principles)?

16. Could the Congress supplement the system proposed in NUREG-0957 with additional funds from state or local governments, even though, in the absence of any action by Congress these entities would not be legally liable for such claims (i.e., these parties would be indemnified parties under the approach recommended in NUREG-0957)? Would it make any difference whether the governmental entities from whom additional funds are sought were legally responsible for the accident (i.e., in the absence of the Price-Anderson

scheme, the entity or entities would have been legally liable for the accident, in the traditional tort context)?

17. What steps could the Congress take, if it intervened following an accident, to modify the open-ended annual assessment approach that it could not take, following an accident, in approving a compensation plan submitted by the President under PA 3238? Please explain the specific remedies and the legal justification for steps that can be taken under the former approach that cannot be taken under PA 3238.

18. What additional or different actions did you have in mind when you said that "Congress could exercise its authority to intervene in the compensation program at any time"?

19. Would any of the actions identified in questions 5 through 18 be constitutional?

20. What would happen under the approach recommended in NUREG-0957, following an accident, if Congress took no action?

21. In the absence of any Congressional action, would the proposal for an unlimited annual assessment eventually result in full compensation for all claims following a single nuclear accident? Please explain how such a system would work.

22. In the absence of any Congressional action, would the proposal for an unlimited annual assessment eventually result in full compensation for all claims following multiple nuclear accidents occurring at the same time? Please explain how this approach would work in the case of multiple accidents?

23. In response to a pre-hearing question, the Nuclear Regulatory Commission has made the following statement: "Clearly the proposal under NUREG-0957 could not handle $200 billion in public liability claims." Do you agree with this statement? If not, please explain how the open-ended annual assessment approach would work for $200 billion in claims. If so, why wouldn't the NUREG-0957 approach be capable of handling $200 billion in claims? Wouldn't such claims be compensated by merely assessing annual premiums until all such claims had been paid--in this example, for approximately 200 years? At what point, in your judgment, does it become clear that the amount of claims will exceed the ability of this approach to efficiently and effectively compensate? $2 billion? $10 billion? $50 billion? What happens at this point? Would Congress then have to become involved in reviewing the accident and deciding whether further compensation is warranted?

24. Should Congress establish a system, in advance of an accident, that will handle $200 billion in claims?

25. In testimony before the Subcommittee in 1985, Commissioner Asselstine made the following statement: "No matter how large the consequences of a nuclear accident, sufficient funds would automatically be available to pay all valid public liability claims." Do you agree with Commisioner Asselstine's statement? Please explain.

26. With regard to the collection of an annual retrospective assessment, as proposed in NUREG-0957, please provide the Subcommittee with your views on the following issues regarding the mechanics of such an approach:

(a) Should this assessment be collected from every reactor licensee with a license in effect at the time of the accident?

(b) Should it be collected from only those reactor licensees with operating licenses or should it cover licensees with construction permits as well?

(c) If, as it appears likely, the utility that suffers the accident is unable to pay the annual assessment, is it fair to require unlimited annual assessments from all other reactor licensees, where there is no connection between these licensees and the accident, while the utility that suffers the accident pays nothing? Please explain.

(d) How many annual assessments would be collected under this approach?

(e) Would there be any limit on the amount of funds that could be generated by the annual assessment?

(f) Would the assessments continue to be collected from a reactor licensee after the reactor has reached the end of its useful (licensed) life, the reactor is decommissioned, and the operating license is surrendered?

(g) If so, please explain the legal basis for imposing such an assessment after the operating license has been surrendered?

(h) How would such "post OL" assessments work? In the case of a "single-asset" utility (such as Maine Yankee or any of the others), how would such an assessment be collected after the utility has ceased operating its nuclear plant, surrendered its operating license, and dissolved the corporate entity? How would such an assessment be collected from publicly-owned nuclear utilities, where there are no "shareholders", once the utility ceases operating its nuclear plant and surrenders its operating license? How would such an assessment be collected from rural cooperatives operating nuclear plants, where the utility ceases operating its nuclear plant and surrenders its operating license?

(i) Suppose, following an accident, that $10 billion in claims are awarded under the unlimited annual assessment approach, with a resulting payout rate of approximately 10 years. Twenty five years after the accident (i.e., prior to the running of the statute of limitations recommended by EPI), a new round of claims emerges, for alleged latent injuries caused by the accident. These claims are adjudicated and a court awards an additional $15 billion to the claimants. In the intervening 15 years after the first round of claims was completely paid and prior to the filing of the latent claims, however, 50 reactors--all of which were in operation at the time of the accident and contributed to the first $10 billion in claims through annual assessments--ceased operation and surrendered their operating licenses to the NRC. Would these licensees be responsible for the annual assessments necessary to pay the $15 billion in claims for latent injuries? If so, please explain how such a system would operate, including the mechanism for collecting such assessments from these 50 "former licensees" and the legal basis for imposing such assessments?

(j) How would the unlimited annual assessment work in the event that two accidents occurred at the same time? Would the annual assessment cover all claims from two such accidents? Would two annual assessments be triggered for two accidents? Three assessments for three accidents? Is there any limit on the number of annual assessments that can or should be triggered at any one time? If the number of such annual assessments that can be collected at any one time is limited, please discuss in detail how claims will be paid when the number of accidents exceeds this limit. How will the claims be prorated among the claimants from the accidents? What court(s) will have jurisdiction over multiple claims from multiple accidents?

(k) Is such a scenario, involving multiple accidents, possible or probable, in your judgment? Should the compensation system established by Congress be designed to accommodate more than one accident at the same time, with the objective of ensuring full compensation for all legitimate public liability claims from all such accidents? If so, how would you structure such a system?

27. In testimony before the Senate Energy and Natural Resources Committee in 1985, EPI stated that "any compensation plan which requires funds from parties who are not directly responsible for the accident will be viewed as 'inequitable' by some." Please explain this statement. Would EPI view such a system as inequitable? Are you saying that in whatever system the Congress sets up--either before or after an accident--we should only require those who are "directly responsible" for an accident to pay, or should we go beyond that and impose the cost of compensating victims of an accident on those who are in no way directly responsible for the accident? Does the open-ended annual assessment approach meet your test of direct responsibility? Please explain. Is a utility "directly responsible" for whatever accident occurs at whatever plant, merely because that utility operates a nuclear plant, under the standard that you have proposed? Why should a utility be "directly responsible" for accidents at other utilities?

28. In July of 1985, before a joint hearing of the Senate Energy and Natural Resources Committee and the House Interior and Insular Affairs Committee on S.1004, a witness for the Environmental Policy Institute testified in opposition to that bill, on the ground that "we should not set up a situation where there are those open-ended liabilities when we can't demonstrate a direct connection to who is responsible for those particular costs." Yet, in October of 1985, in EPI's testimony before the Subcommittee on Nuclear Regulation, you endorsed an approach for compensating victims of a nuclear accident that imposes "open-ended liabilities" on utilities that have no direct connection to, nor responsibility for, the accident that causes the injuries. How do you reconcile these two seemingly inconsistent positions?

29. In that same July 1985 hearing, EPI argued that liability should not be imposed for clean up of uranium mill tailings unless there is "a direct relationship of responsibility there that we can ascertain in some objective forum . . ." Do you support this same principle for paying claims under Price-Anderson? If so, what is the "direct relationship of responsibility" between those utilities required to contribute open-ended annual assessments and the accident that resulted in the injuries? If not, why not?

30. When the Environmental Policy Institute and the Union of Concerned Scientists testified before Congress on the TMI-2 cleanup bill, you argued that the "inequity of requiring ratepayers to pay for the mistakes of a utility's management (let alone a utility that does not even provide those ratepayers any power) is reason enough to oppose" the TMI-2 cleanup bill. Please explain the basis for this statement, and the seeming inconsistency

between this statement and the position that EPI and UCS have taken on reauthorization of Price-Anderson? Why is it unfair in the context of the TMI-2 bill, but not for Price-Anderson claims?

31. In June of 1985, in testimony before the Senate Energy and Natural Resources Committee, EPI took the position that "the NRC proposal is little more than a retroactive insurance scheme. The owner of each nuclear plant is required to pay an 'annual' premium to cover an accident at another plant, in exchange for the assurance that liability for an accident at his own plant would be covered; this is precisely what each one of us does when we purchase insurance." Please identify all insurance policies, in whatever field, under which (1) the insured is required by law to carry the insurance; and (2) the insured is liable for open-ended payments of an indeterminate amount to pay for an accident caused by someone else insured under that policy?

32. When the Environmental Policy Institute and the Union of Concerned Scientists testified before the Environment and Public Works Committee on the TMI-2 cleanup bill, EPI and UCS testified that under that bill, the "direct passthrough of premium costs combined with the unlimited assessment of member utilities authorized to reimburse the full cost of any future accident in effect makes this mechanism not insurance, but rather an unlimited excise tax on nuclear utility ratepayers." The UCS witness stated that "that fund is not really insurance in any normal sense of the word." How do you reconcile your position on the TMI-2 cleanup bill--which you said was not insurance because of the unlimited assessments--with your position on S.44, which contains the same unlimited assessments and which you contend is just another form of insurance? Why is one insurance and the other not?

33. Please identify all federal legislative schemes where participants in a given industrial activity are required to pay an indeterminate assessment, tax, or other fee to compensate injuries caused by the actions of a single member engaged in that particular enterprise, where no one but the party suffering the accident would have been legally liable, in the absence of such a federally-imposed system (by "indeterminate assessment, tax, or other fee", I mean an assessment, tax, or other fee the aggregate amount of which is unknown at the time that the federal system is imposed on the party).

34. In a publication entitled "Unavailable at Any Price", published in 198[illegible], the Environmental Policy Institute endorsed repeal of the Price-Anderson Act. In that publication, EPI stated that "the Price-Anderson Act should be repealed, allowing the nuclear industry to be regulated by the checks and balances, as well as the risk assessments, of the free-market system." Do you support that "free-market" system today for the nuclear industry? If so, shouldn't Congress simply allow the Price-Anderson Act to expire, so that nuclear utilities can be treated like every other industrial activity? If not, why do you support treating nuclear utilities any different than other industrial activities, such as the chemical industry or the airline industry? Do you support a system that provides special or unique treatment for the commercial nuclear industry?

35. Do you support a ceiling on the amount that individual utilities should be required to pay annually in retrospective assessments under a compensation system for nuclear accidents? If so, where would you set this annual limit? If claims awarded on an annual basis exceeded the aggregate annual amount available under such a system, would you support raising or lifting the ceiling, following the accident, on the amount of the annual assessment, or should victims have to wait to recover until such a system, with a ceiling on payments, generates sufficient funds to pay those claims? If you support raising or lifting the ceiling after an accident, why not simply take that action today and set the ceiling at a higher level or eliminate it altogether? If not, why should victims have to wait to recover for injuries caused by a nuclear utility? In your publication "Unavailable at Any Price", you state that losses from a nuclear accident could reach $280 billion in property damages alone. In light of the fact that all of these damages would be incurred immediately (i.e., none of the property damages is likely to be "latent"), how long would it take to compensate $280 billion of damages in full under the approach that you support?

36. In your analysis of the impact of a $10 million assessment on various utilities, attached to your testimony in 1985, you appear to limit your analysis to "investor-owned utilities". Why? If you have undertaken such an analysis, please provide it to the Subcommittee.

37. Do you support an unlimited number of annual assessments to pay claims from multiple accidents? If so, why haven't you examined the ability of utilities to afford such multiple assessments and, instead, limited your analysis to the impact of a single $10 million assessment? If you have undertaken such an analysis, please provide it to the Subcommittee.

38. According to an analysis prepared for the Nuclear Regulatory Commission in 1976 on the ability of various utilities to afford a retrospective assessment ("Financial Implications of Retrospective Premium Assessments on Electric Utilities", NR-AIG-003, p. 26), the report states with regard to nuclear plants owned by rural cooperatives that "[t]he ability of cooperative systems to meet retrospective premium assessments is less clear." The same report goes on to note that "possible backup support for cooperatives could be provided by the Rural Electrification Administration and/or the National Rural Utilities Cooperative Finance Cooperation in the event of retrospective premium assessments." Did you examine the ability of rural cooperatives to afford an annual assessment of $10 million? If so, please provide your analysis to the Subcommittee. If not, why not?

39. Do you support such federal financial "backup" for rural cooperatives? If so, how do you reconcile this approach with your objective of eliminating the federal financial commitment to paying claims following a nuclear accident?

40. In your analysis of the ability of utilities to afford an annual retrospective assessment of $10 million, did you consider the ability of publicly-owned reactors to pay this assessment? If so, please provide your analysis to the Subcommittee. If not, why not?

41. Under what circumstances, if any, would it be appropriate for the NRC to order nuclear reactors to shut down, following a catastrophic accident at

a single reactor? Could you envision a situation where a significant number of reactors would be ordered to shut down for an extended period of time? Permanently? Would it be appropriate in such a circumstance for a state public service commission to take a reactor out of the rate base, if the Commission ordered the plant shut down because it could not be operated safely? Would such a reactor be "used and useful" in your judgment? If, in response to individual shutdowns, state public service commissions take individual reactors out of the rate base, is your analysis of the ability of individual utilities to afford an annual retrospective assessment of $10 million still valid? Please explain why. In particular, what impact would such shutdowns have on the figures cited in your analysis? If not, please provide the Subcommittee an analysis of the ability of a utility to afford such an assessment, if it is ordered to shut down its reactor and to take it out of the rate base.

42. Would your analysis be different under any of the following conditions: (i) the utility that suffers the accident declares bankruptcy; (ii) a utility other than the utility suffering the accident is ordered to take its reactor out of the rate base while, at the same time, that same utility has a major construction program underway; (iii) all plants of a given type are ordered to shut down (e.g., the B&W shutdown), and, as a result, are taken out of the rate base; a given utility operates more than one reactor of this type and, at the same time, that utility has all of its other reactors shut down for unrelated reasons (e.g., the situation at TVA today). Please provide the Subcommittee with your analysis of the ability of a utility, in each of these three scenarios, to afford an annual assessment of $10 million.

43. If, as stated in testimony before the Subcommittee in 1985, insurance companies refuse to insure payment of an indeterminate, open-ended assessment of the kind you support, what approach would you support for the payment of such an assessment, if a given utility is financially incapable of paying the assessment?

44. In the event that the utility suffering the accident is financially incapable of paying the required annual retrospective assessment, and, in the absence of any insurance for payment of retrospective premiums, should the federal government guarantee the payment of such assessments, as it does under the existing Price-Anderson Act? If so, how do you reconcile this with your objective of eliminating the federal financial commitment to paying public liability claims? If not, how do you defend the seemingly inequitable result that all of the "innocent" utilities will end up paying more as a result of an accident than the utility that actually suffered the accident, if the latter ends up defaulting on payment of the annual assessment?

45. What financial role, if any, should the federal government play in compensating public liability claims?

46. Do you support an approach that would allow parties who contribute to the payment of public liability claims following a nuclear accident to recover those contributions from any party who might be liable for causing the accident (i.e., a right of subrogation)? If so, doesn't this essentially eliminate the "channeling of liability" provision in Price-Anderson,

and thereby encourage expensive and time-consuming litigation over who is liable for an accident? Please explain.

47. Please explain in detail how such a "subrogation" system would work. Who could a utility sue to recover its $10 million annual assessment? The utility that suffered the accident? Any other party who contributed to the cause of the accident? States? Local governments? Architect-engineers? Vendors? Sub-tier suppliers? The Nuclear Regulatory Commission?

48. Under such an approach, where subrogation is allowed, would you allow any party who might be liable (or who is concerned that he or she might be liable) to participate in the initial adjudication of public liability claims, so as to protect their rights and, most importantly, to defend against any evidence suggesting that that party might be held liable for the accident? If so, what impact would the resulting proliferation of parties in the lawsuit and the almost certain delay in the proceedings that additional parties would generate have on the ability of individual victims to recover promptly, without unnecessary procedural impediments? If not, under what procedures and in what forum will the legal rights of these various parties be adjudicated? Would the initial litigation, including the findings of fact and the findings of law, be res judicata in any subsequent litigation?

49. Would you support the same subrogation approach for contractors indemnified by DOE under section 170d. of the Act?

50. In your testimony before the Congress in 1979 on Price-Anderson, you endorsed an approach that would allow claimants to recover directly from the utility that suffers the accident. Again, in endorsing S.445 in the 99th Congress, you supported such an approach. Do you still support such an approach today? If so, under what circumstances? If not, why not?

51. In 1980, when the Environment and Public Works Committee considered and reported the original Superfund bill, the Committee gave careful thought to the equity of imposing a "Superfund tax" on the chemical industry. When the Committee agreed to impose such a tax, it emphasized three important factors: (i) After looking at the chemicals that were showing up at the waste sites, the Committee felt that the tax on various companies reflected their percentage contribution to the waste dump problem--in the words of the report, there was a "nexus" between those being taxed and the problem; (ii) the Committee was comfortable with taxing these companies because we were establishing "statutory maximums" that the fees could not exceed; and (iii) the Committee felt that the appropriations process would assure scrutiny of the use of the fund by the Administration and the Congress. You note in your testimony in 1985 that the approach you supported at the time -- S.1761, with a subrogation amendment--is similar to Superfund. Yet as I review the original rationale for the Superfund legislation, as reflected in our Committee report, your proposal appears to go far beyond Superfund in every one of these three areas. Why? What is the "nexus" you see here between the accident at utility "A" and the requirement for all other utilities to pay for the damages? If you support such an approach, based upon the Superfund model, why don't you support limits on the amount of the aggregate assessment that may be imposed on any individual utility? Would you support an approach that would require Congress to appropriate the funds

to be awarded to public liability claimants, similar to the appropriations process required for expenditure of Superfund monies?

52. The positions that you have taken over the years on the Price-Anderson issue have changed substantially with regard to whether this Act should be retained and, if so, what changes should be made in the basic approach. Please explain the rationale for the following positions taken by EPI, and, in each instance, the reason EPI changed its mind: (1) In July of 1979, EPI supported an approach that called for the President to provide recommendations to the Congress, after all available utility assets from the utility suffering the accident were exhausted, on what additional compensation should be provided, and for the Congress to act on the President's recommendations within 90 days; (2) In 1980, EPI demanded that Price-Anderson be repealed; (3) In 1983, EPI endorsed a bill introduced by Senator Hart, calling for absolute limits on the amounts that those utilities not responsible for an accident should be required to pay through the retrospective premium system; in addition, as reflected in Senator Hart's bill, EPI endorsed a one-time retrospective premium of $5 million; (4) In 1985, EPI endorsed an open-ended assessment on non-responsible utilities, up to $15 million; at the same time EPI announced that it was opposed to a congressional review provision that is virtually identical to the one supported by EPI in 1979, on the ground that the provision would be unworkable.

53. In each instance, identified in question #52, where EPI has changed its position, it appears that EPI has done so in favor of a system that places a greater burden on nuclear utilities. Some view this history of changing positions as an effort on your part to come up with a formulation that seeks to impose the greatest burden on the nuclear industry, with the objective of inhibiting the development of nuclear power, rather than as an effort to come up with a formulation that will provide efficient, effective, and equitable compensation to accident victims. What is your response to this point? In addition, please respond to this question in light of the following statement from the August 1985 issue of Groundswell, a publication of the Nuclear Information and Resource Service: "In the past, most anti-nuclear activists have called for the total elimination of Price-Anderson. Why then are they now supporting its extension, albeit with reforms--especially when the industry repeatedly has said new reactors would not be built without some form of liability protection? It's primarily because even if the Act were repealed now, every reactor now operating or under construction would still be covered under the current, inadequate provisions. To improve the public's protection will require reform of the law, not its abolition. And it is possible that if some form of unlimited liability provision is written into the new Act, that alone may be enough to hamper future nuclear construction plans." Please explain what is meant by this statement. Do you agree with this statement? In light of the fact that your testimony in the past has been presented on behalf of NIRS, among others, is their position on this matter, as reflected in the foregoing excerpt, shared by the other groups that have endorsed the testimony, as presented by EPI? If so, which groups share this position? If not, why do you disagree with this statement?

54. Given a choice between a system that establishes a limit on liability of $10 billion, with no right of subrogation, and a system that establishes a limit on liability of $2 billion, with a right of subrogation, which

approach would you prefer? Given a choice between a system that establishes a limit on liability of $5 billion, with no right of subrogation, and a system that establishes a limit of liability of $2 billion, with a right of subrogation, which approach would you prefer? Given a choice between the existing system, modified to allow for a right of subrogation, and the approach taken in PA 3238, which approach would you prefer?

55. Given a choice between the approach taken in PA 3238 and allowing the Act to expire (*i.e.*, no further coverage for new plants or contractors), which approach *would* you prefer?

56. Given a choice between the approach taken in S.44, without subrogation, and allowing the Act to expire, which approach would you prefer?

57. According to the testimony of the National Taxpayers Union in 1985, "S.1761 guarantees that the federal treasury will not ultimately bear the cost of a commercial reactor accident." Do you agree with this statement? Would you support an approach that could not guarantee that the federal treasury would not be called upon under any circumstance?

ANSWERS TO QUESTIONS FROM SENATOR ALAN K. SIMPSON

FROM KEIKI KEHOE, ENVIRONMENTAL POLICY INSTITUTE

1. EPI supported such an approach in 1979 when there were no other alternatives under consideration. Since the issuance of NUREG-0957 in 1983, there has been a better alternative. We support the NRC's 1983 recommendation, as embodied in S.44; we support H.R. 2141, as the preferred alternative to any of the current Senate bills.

2. Congressional review is always appropriate. Because one Congress cannot bind a future Congress, we do not believe that an accident compensation program should be dependent upon Congressional review -- if there is an alternative, such as the NRC's 1983 proposal. If reaches a stalemate or otherwise fails to act, there would be an ongoing source of compensation funds available.

3. See answers to questions #1 and #2.

4. Congress is always free to intervene in programs if a majority of members believe that an alternative action is preferable. The legality of Congressional intervention would have to be determined by the courts.

5. It is difficult, if not impossible, to predict at what point and under what circumstances Congress would want to intervene.

6. No further Congressional action is required, but of course it is allowed if Congress believes it is necessary to intervene. The precise mechanics for implementation of the compensation program would be determined by the NRC through the promulgation of rules and regulations after the legislation has been enacted.

7 through 8. See answer to question #4.

9. It is difficult to predict the answer since the implementation of the Price-Anderson system has not been tested in the courts.

10 through 18. See answer to question #4.

19. The constitutionality of any action would need to be resolved by the courts.

20. The owners of nuclear plants would be assessed $10 million per plant until the court determined that sufficient funds were available to satisfy damages.

21. Such a system would work according to whatever rules the NRC promulgated after the passage of legislation implementing NUREG-0957.

22. Multiple accidents were contemplated by the NRC in NUREG-0957 in Subject Report I. If Congress approved legislation implementing NUREG-0957, the mechanism for handling multiple accidents would be expected to be a part of that legislation.

23. It is impossible to simply "pick a number" as a point at which the NUREG-0957 compensation program is incapable of adequately responding. While we support the compensation approach in NUREG-0957 as a preferable alternative to any other proposal currently before Congress, it is not perfect.

24. Congress should identify a source of funds, in advance of an accident, for compensating public damages.

25. In the event of a very large accident if sufficient funds were not immediately available the NRC could invoke the borrowing authority as provided by S.44.

26. We support the principle that the nuclear industry as a whole should provide the funds for compensating accident damages as an alternative to requiring either victims or taxpayers from assuming these costs. As the NRC proposed in NUREG-0957, nuclear licensees should be required to contribute to the post-accident compensation fund for as many years as it is necessary to compensate damages. Additional questions: a) yes; b) all licensees; c) if Congress anticipates that utilities would default on their assessments then Congress should consider requiring a system of pre-funding for these assessments; d) as many as necessary; e) no; f) if necessary; g) the utilities' other insurance arrangements for on-site coverage require payment of premiums even after a licensee has cancelled coverage, the courts would likely determine the legality of such a requirement if circumstances necessitated it; h) this would be up to NRC regulations and court determinations; i) the court would be responsible for determining how to handle such a situation; j) see answer to question #22; k) highly improbable.

27. The statement: "...will be viewed as 'inequitable' by some" is self-explanatory. Any proposed solution to a difficult problem can be expected to trigger objections by some. As we have stated in our testimony, EPI believes that there are only three sources of funds to pay for a nuclear accident: victims, taxpayers or the nuclear industry. We believe that the fairest system would impose the costs solely on the party directly responsible, to the extent that does not satisfy the need for compensation, we believe that it is more fair for the nuclear industry as a whole to contribute to the compensation fund rather than putting the burden on either taxpayers or victims.

28. The comparison between the Price-Anderson system and the uranium mill tailings cleanup proposal is not appropriate for several reasons. 1) The uranium mining industry and the utility industry are two entirely separate and distinct industries. Under

the mill tailings cleanup proposal that we opposed, the utility industry was being asked to pay for liability incurred by a totally different industry. We did not object to one mining company helping to pay for another company's mill tailings. We did object to proposals that would impose a totally new liability onto an unrelated industry. 2) The 1978 Uranium Mill Tailings Act clearly established that the mining industry was legally responsible for paying for cleanup. 3) The circumstances for mill tailings clean up involved a direct liability on the part of the mining industry; requiring the utility industry to pay this liability did not involve any direct benefit to the utility industry. Under the proposed amendments to Price-Anderson, there is a direct and immediate benefit for every owner of a nuclear plant to participate in the post-accident liability pool. The similar, or even comparable, benefit did not exist in the mill tailings proposal.

29. See answer to question #28.

30. Similar to the question above, this is not an appropriate comparison. There are two fundamental differences between TMI cleanup bill and proposed amendments to Price-Anderson. First, the costs were for property owned by the private utility and not damages to the public. Second, it was an after-the-fact solution to a problem that could be taken care of without federal legislation. The TMI cleanup bill would nave imposed a tax all nuclear utilities for costs that one utility had not anticipated. "After-the-fact" solutions to "unanticipated" problems is something that we are trying to avoid, through amendments to Price-Anderson. The cleanup costs at Three Mile Island, which at the time of the proposed bill were around $1 billion, are much lower than costs that many utilities have borne in cost-overruns for nuclear plant construction. We did not believe that it was appropriate to tax all utilities to pay these costs, just as we do not believe that it is appropriate for LILCO to come to Congress and ask all utilities to pay for its cost overruns at the Shoreham plant.

31. There are countless instances in our society where people are required by law to carry insurance. Most states require auto owners to carry liability insurance before they allow the operation of a motor vehicle; most lenders require homeowners insurance before they will approve a mortgage. There are certainly some differences between the proposed system under NUREG-0957 and standard insurance, such as the requirement that payments be made for an indeterminate amount of time. The most striking differences between NUREG-0957 and standard insurance are those in the insured's favor: no premiums are paid unless an actual loss occurs and then premiums are required only for as many years as necessary to actually compensate damages. We would expect that many individuals and businesses would welcome such changes in their traditional insurance policies.

32. See answer to question #30. The fundamental difference between the TMI cleanup situation and proposed amendments to Price-Anderson involve the issue of "prior arrangements." If one company decides, after a loss, that all similar companies should share the financial burden of that loss, that is not insurance. If it is decided, before the loss, that a given group of companies should share the financial burden if there is a loss, then that is a type of insurance.

33. There is no question that the proposal contained in NUREG-0957 is unique in many ways; so are many of the features of the Price-Anderson system. Please see our complete testimony, particularly the discussion of the Price-Anderson "balance" for a few of the more notable examples.

34. In the 1980 publication "Unavailable At Any Price," EPI advocated repeal of Price-Anderson and argued for a "free market" solution to the problem of nuclear liability. In our view, victims of a nuclear accident would likely be better off with no Price-Anderson than the current law. Since that time, other alternatives have been proposed, such as NUREG-0957 which offer greater benefits to both the public and the nuclear industry than repeal of the Act. In light of the fact that the public is unable to purchase any insurance to protect their homes, businesses or other property from nuclear damages, it is important for Congress to provide potential accident victims a mechanism for receiving compensation, we believe that NUREG-0957 offers the best alternative. We do not support unique treatment for the nuclear industry that exempts all vendors, suppliers and federal contractors from public liability. Exposure to liability serves as an important deterrent to negligent and reckless behavior for other industries; the nuclear industry should be treated similarly.

35. According to Commissioner Asselstine, Price-Anderson amendments should consider four basic questions: 1) does it assure full victim compensation? 2) does it provide a timely and assured source of funds? 3) does it avoid imposing the costs on the Federal government? 4) does it avoid imposing a catastrophic financial burden on nuclear facilities? We share Commissioner Asselstine's view that the proposal contained in NUREG-0957, and S.44, meets each of these tests.

36. Our analysis was limited to investor-owned utilities because the financial information for those utilities was readily available. Our analysis was developed in order to give interested parties a "ballpark" estimate of what these assessments represent. This was not intended to be an exhaustive financial analysis of every conceivable possibility. In terms of the possibility of multiple accidents, see answer to question #22.

37. See answer to question #36.

38. See answer to question #36.

39. We would not object to "backup" from the National Rural Utilities Cooperative Finance Cooperation, which does rely on federal funds, in the event that it was necessary.

40. See answer to question #36.

41. It is difficult to predict under what circumstances the NRC and/or Congress would decide that it is necessary to shutdown nuclear power plants. This is an issue that would certainly be debated in Congress after a catastrophic accident, the outcome of such a debate is a matter of pure speculation. In the event that reactors were shutdown, the appropriate rate treatment would be a matter for individual utility commissions to determine. If Congress is concerned that utilities may not be capable of paying the annual assessments after an accident, then Congress should consider a method for pre-funding a compensation pool.

42. See answer to questions #36 and #41.

43. Under the current Price-Anderson Act, the possibility of a utility default is contemplated. The NRC has the authority to guarantee the payment of deferred premiums and to assure reimbursement of the payments by creating liens on the utility and its revenues.

44. If Congress is concerned that utilities may not be capable of paying the annual assessments after an accident, then Congress should consider a method for pre-funding a compensation pool. Also see answer to question #43.

45. The federal government should play as small a role as possible. To the extent that private industry can afford to collectively insure for nuclear liability, as proposed in NUREG-0957, the most appropriate role for the government would be in advancing funds to compensate damages with repayment, and interest from licensees.

46. Yes, we support the right of subrogation. The argument that this would destroy "channeling" is addressed in our full testimony under Part I, the section heading "The Industry Position."

47. See testimony and question #46.

48. See questions #46 and #47 above. With or without a right of subrogation, we would anticipate a proliferation of lawsuits if the post-TMI accident suits between GPU and Babcock and Wilcox is any indication of things to come.

49. Yes.

50. We believe that such an approach is preferable to current law. As an alternative, the proposal put forth in NUREG-0957 would preferable in terms of victim compensation.

51. The principle behind the Superfund legislation is that the responsible party should pay, whenever possible. That is the same principle that we support in Price-Anderson.

52. Over the past decade, EPI has been invited to comment on various proposals to amend Price-Anderson in Congress. In each instance EPI has evaluated the alternatives under consideration and supported those which came closest to meeting the goals of victim compensation and industry accountability. EPI has not been opposed to "Congressional review" per se; we do not believe that a compensation system which depends on Congressional review is as reliable as one which establishes a mechanism for funding a compensation pool that can move forward in the event that Congress is unable to reach a consensus.

53. It has indeed been EPI's position to favor amendments to Price-Anderson which put the greatest burden on the nuclear industry. That is where we believe the burden belongs. If our goal were to impose a burden for the purpose of inhibiting the development of nuclear power, EPI would not be supporting a proposal that was developed and fully endorsed by a Reagan-appointed NRC; an agency that is clearly supportive of the nuclear power industry. Many people believe that the liability provisions of Price-Anderson should be amended in a way that forces the nuclear industry to shut down. That is not the anticipated outcome of the legislative proposals endorsed by EPI. When EPI testifies on behalf of NIRS, or any other organization, the shared views and policy positions are those that are presented in the prepared statement.

54. We do not believe that this is the choice before Congress, nor is it appropriate to engage in such hypothetical speculations.

55. See answer to question #54.

56. See answer to question #54.

57. See answer to question #45.

TESTIMONY OF STEVE C. GRIFFITH, JR.
SENIOR VICE PRESIDENT AND GENERAL COUNSEL
DUKE POWER COMPANY

ON BEHALF OF
AMERICAN NUCLEAR ENERGY COUNCIL
AND
EDISON ELECTRIC INSTITUTE

ON
AMENDMENTS TO THE PRICE ANDERSON ACT

BEFORE THE
SUBCOMMITTEE ON NUCLEAR REGULATION
OF THE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

APRIL 30, 1987

My name is Steve C. Griffith, Jr. I am Senior Vice President and General Counsel of Duke Power Company. My statement is on behalf of the American Nuclear Energy Council ("ANEC") and the Edison Electric Institute ("EEI"). ANEC represents more than 100 organizations having an interest in nuclear power, including privately, publicly, and cooperatively-owned utilities, manufacturers, architect-engineers, and various other firms involved in the nuclear electric power industry and its supporting fuel cycle. EEI is the association of investor-owned electric utility companies and its members generate about 75% of the electricity in the United States.

Members of ANEC and EEI have made substantial commitments to the use of nuclear energy in the generation of electricity. My company, Duke Power, operates seven nuclear units.

Amendment No. 3238

You have asked that we provide our views, on, among other things, printed Amendment No. 3238. During the last session of Congress, this committee and the Committee on Energy and Natural

Resources thoroughly reviewed Price Anderson and a large number of proposed amendments. That process led to the development of Amendment No. 3238 as a proposed substitute for the two versions of S. 1225 that had been reported last year. Described as a reasonable reconciliation of those two versions, it was arrived at through the hard work of the Senators and staff involved. It would have extended and improved Price Anderson, while maintaining its fundamental structure. Time did not permit floor action last year; nevertheless, the bill was a sound and reasonable compromise.

We urge prompt action on legislation to extend Price Anderson that would preserve its fundamental structure, as Amendment No. 3238 would do. We can accept that bill, though as we have previously testified, not without some difficulty, as there are some troubling aspects to it. Especially difficult to accept has been the drastic increase in retrospective premiums to be paid by licensees.

The retrospective premium system was an innovation of the 1975 amendments to Price Anderson. At that time, the electric utilities with nuclear units agreed to replace the Federal Government's indemnity with a retrospective insurance provision that requires them to pay for an accident at a facility over which they had no direct control. This has worked well. It provides the most inexpensive form of protection for the public, and got the government out of the power reactor indemnity program. The utilities agreed that they would provide liability insurance themselves by participating in a reasonable amount in an excess mutual insurance system. But, in agreeing to this form of mutual insurance, the industry did not agree to sign a blank check. There are limits that must be observed, failing which the system will begin to break down. The increase in retrospective premiums for each licensed reactor for any one nuclear incident from a maximum of $5 million to a maximum of $60 million is as far as we can go, and is already of a magnitude that could well increase costs.

That is because investors will no doubt consider the size of the retrospective premium in deciding what they must have in the way of an effective return on the securities of nuclear utilities, and the cost of money will affect the cost of electricity. We can accept the very large increase in the retro to $60 million only so long as this amount is not the start of a new bargaining process to increase it to an even higher level. We would have preferred a lower figure, but can accept the $60 million maximum retro in order to permit passage of a bill that improves the present law and extends coverage to future plants. The lower figure would have had the advantage of allowing the Congress to intervene at a more reasonable level to substitute a more efficient compensation system for the costly tort system, while retaining a large pool of funds, available promptly, to cover immediate needs. We ask that you bear these considerations in mind when you consider the level of deferred premiums for which licensees can be assessed.

We cannot emphasize too strongly the importance of retaining the fundamental structure of Price Anderson. Many billions of dollars have been invested in reliance on the Congressional assurance that liability coverage (both defense and indemnity) will be coextensive with liability exposure for the life of the facility. Vendors, architect-engineers, constructors, and other suppliers to the nuclear industry have relied on economic "channeling" of liability to licensees, without recourse against suppliers or third parties.[1] As a result, suppliers have foregone separate liability coverage and have not included nuclear third-party liability in their pricing in reliance on the Congressional assurance that the liability coverage will be provided centrally by the licensee for each reactor to everyone who may be liable for a nuclear incident at that reactor (sometimes referred to as universal or "omnibus" coverage), and that they will not be vulnerable to judgments unless, and to the extent that, insurance (or, where applicable, as in the case of university research reactors, government indemnity) is then available to provide defense and pay claims on their behalf.

Retaining the fundamental structure of the Price Anderson system requires preservation of these elements:

(a) mandatory insurance coverage

1/ Price Anderson achieves a true economic efficiency by avoiding the layering of insurance premiums and/or risk factors in pricing. It does this by placing the financial burden of liability for offsite damages solely on the licensee operating the nuclear power reactor ("channelling") without recourse by licensees against suppliers or other defendants. The channeling and "no recourse" features of the U.S. Price Anderson system are not accomplished directly, as in the international conventions on third-party liability and the laws of other nations, by making the operator of the facility exclusively liable as a matter of law. Rather, they are achieved by the operation of limitation on liability and "omnibus" coverage in conjunction with each other and various technical provisions of the act.

(b) of anyone who may be liable

(c) for the entire liability exposure (defense and indemnity for all damages)

(d) on a channeled, no recourse basis

(e) for the life of the facility

(f) to produce a large pool of funds promptly after an accident

(g) to be paid out in the case of an extraordinary nuclear occurrence under waivers of defenses so that claimants need only establish causation and damages,

(h) subject to limited legal liability but not limited compensation (in view of the congressional commitment to provide full compensation)

Refinements can be made, of course, as I discuss next.

The addition of clarifying and perfecting amendments that would provide borrowing authority to cover shortfalls in funds to pay claims in any one year, and those that would establish procedures for expeditious action on recommendations from the President as to how best to provide full compensation even if all primary and secondary insurance proceeds are exhausted, as provided by Amendment No. 3238, would enhance the public benefit features of Price Anderson. It makes sense to establish mechanisms before the fact to assure a large pool of funds almost immediately, sufficient to deal with most of the accidents that could occur, although the probability of any accident having substantial offsite consequences is very low indeed. Should a larger accident occur, the provisions of the bill for expeditious consideration of Presidential compensation plans will permit assessment of the priorities and adoption, after the event, of mechanisms to marshall and disburse funds as dictated by the peculiar circumstances. Such measures would provide even greater assurance than the present law that Congress means to see that prompt and full compensation is provided, and we endorse them.

Because legislation that retains the fundamental structure and advantages of Price Anderson, as does Amendment No. 3238, and that makes changes that improve the working of the system is in the interest of all concerned, we support that amendment.

Price Anderson is Public Benefit Legislation

The Price Anderson law is enlightened, public benefit legislation. I say that not just because it has made possible private investment in realizing the potential of nuclear energy for the generation of electricity, which it has. Even more importantly, in the event of a nuclear accident, it achieves its paramount objective of assuring prompt compensation of legitimate claims from a large pool of funds without unnecessary procedural obstacles.

Some nuclear critics have argued that Price Anderson transfers the risk of accidents to those least able to deal with it, individuals with claims for damages. That is not so. The first layer of risk, represented by the first tier of prepaid nuclear liability insurance, $160 million at present, is borne by licensees and their customers to the extent of aggregate net premiums and in the short run (until premiums are adjusted) by the insurers and their investors to the extent of greater losses -- up to policy limits.

The second layer of risk, $540 million at present, is represented by the retrospective assessment coverage provided by the 108 power reactor licensees and administered by the insurers. The cost is borne by the customers or investors (or both) of nuclear plant licensees.

If there is a third layer of risk, that is, if further funds are appropriated in accordance with the Congressional commitment under present law, it may be borne by whatever class, including licensees covered by Price Anderson, that Congress elects to tax in order to reimburse the Treasury. Instead, if Congress so elects, the necessary funds might be provided from general revenues, as is the case with disaster relief. The latter course is not unreasonable, since the public at large benefits from the low fuel costs characteristic of safe, normal operation of more than one hundred nuclear plants across the nation. In short, there would be unsatisfied claims and risk-shifting to the injured only if one grants the critic's premise that Congress will renege on its promise.

Finally, one hears the argument that Price Anderson was intended to be temporary legislation. The short answer to that is that government insurance (*i.e.* indemnity) for commercial activities was intended to *be* temporary, and has, as intended, been phased out under the 1975 amendments.

Prior Congresses intended to and did enact a system to induce private investment and assure public compensation under which liability coverage coextensive with liability exposure would endure for the duration of that exposure. The present law represents a highly-refined system, arrived at after careful deliberation in 1957, and incorporating major amendments enacted in 1966 and 1975.[2]

It is important to understand that Price Anderson involves a balancing of benefits and burdens. This was recognized by the Court in its 1978 decision. Price Anderson is also endorsed by such organizations as the American Bar Association (which at the 1987 Mid-Winter Meeting called for its renewal by a resolution adopted by the ABA House of Delegates), and the National Association of Regulated Utility Commissioners. Many other diverse groups have called for Congressional action to extend and improve this beneficial legislation. Indeed, if we look at the effects of large accidents around the world and at our own tort system, Price Anderson could well be the model for generating large sums without excessive advance costs and delivering compensation without unnecessary substantive or procedural hurdles.

The Price Anderson system involves a delicate balance of mutually interdependent elements. Preservation of those elements is essential. Though somewhat complex in concept, the law has proven itself in practice. The licensee coverage worked well in the case of the TMI-2 accident, the only instance in which it has been substantially called upon.

S. 44

You have requested that we address two other bills, S. 44 and S. 843. To begin with the former, we are opposed to S. 44. The bill would repeal any aggregate limitation on liability, providing only an annual limit on the rate of collections of retrospective premiums. It thus does violence to the fundamental structure of Price Anderson in reliance on which many billions of dollars in investments have been made. It would also attempt to use Price Anderson as a device to punish "poor" performance and reward "good" performance through differences in retrospective premiums.

2/ The 1966 amendments required the waiver of certain issues and defenses in order to remove unnecessary substantive and procedural hurdles to the speedy satisfaction of legitimate claims in the event of a major accident. The 1975 amendments created the deferred premium layer of secondary nuclear liability insurance to permit primary reliance on government indemnity to be phased out, which has occurred.

While that objective is an appealing one as an abstract proposition, it unfortunately does not fit either the Price Anderson system or the facts of nuclear power safety.

Price Anderson is not intended to supply safety incentives over and above those that already exist, although the potential liability for deferred premiums does add even greater importance to effective industry self-policing activities, such as those of INPO. All large power reactor licensees would share in the liability costs if a major accident occurred at any one licensee's plant. (Amendment No. 3238 would make this effect even more pronounced. The very substantial retrospective premium calls would mean that the best-operated plant is a hostage to the worst, giving every nuclear utility a strong economic incentive to see that all reactors are operated safely.)

Price Anderson is not intended to be a regulatory or enforcement tool. Nor does it remove safety incentives, so there is no need to add them back in. Price Anderson is a mandatory insurance system. There is no evidence that we know of that people who have liability insurance have a worse safety record than the uninsured. One would not expect the record of insured drivers to be worse than that of uninsured motorists, for example. In fact, statutory requirements making liability insurance compulsory are commonplace.

The idea of differentiating between good and poor performers has a certain attractiveness in the abstract, as I noted at the outset. Because management is a substantial factor in the safe operation of any nuclear reactor, the concept that well-managed reactors should pay less for insurance is superficially appealing. But neither the NRC nor the industry -- including its insurers -- have a sufficient grasp of reliable indicators of accident potential to permit confident assessment of the "best" and "worst" performers for this purpose. Criteria or ratings developed for other purposes are not necessarily good predictors of initiating events, for example. Present underwriting differences reflect mainly differences in size or site characteristics.[3]

3/ There are some rating differences in primary nuclear liability insurance as well as in property insurance for nuclear power reactors. However, these differences do not have a major effect on premium calculations. We know of no reliable performance indicators that would provide a valid basis for differentiating accident probabilities at different reactors. Because we are fortunate in having very limited adverse experience with accidents that damage fuel or the reactor itself, and no experience with accidents causing off-site

(Footnote 3 continued on next page)

Under Price Anderson, the licensee bears the financial burden of liability insurance for all persons liable under the all-encompassing ("omnibus") definition of the insured (or the "person indemnified") to include anyone who may turn out to be liable. The licensee in a given case may not be in any way culpable; the accident may have been caused by a design defect undiscovered despite the exercise of great care, or by the negligent or intentional act of some unrelated third party. Thus, in a given case, all licensees, including the one whose facility was involved, may be blameless. Even more importantly, enforcement history or evaluations of past management performance do not necessarily tell us where an accident will occur. Attempting to use the Price Anderson system to provide safety incentives through variations in retrospective insurance premiums is like a university basing final class standing on entrance examinations; it would elevate predictions over actual performance. It would make more sense to charge the company that had the accident a larger retro -- if it was at fault -- but if the accident is large enough that the secondary level is reached, that company would most likely be insolvent. It will have substantial costs not covered by insurance for property damage and replacement power. It will have difficulty obtaining credit. Nothing prevents the NRC from leveling substantial civil penalties on, or the Attorney General pursuing criminal enforcement of, the person or persons responsible for an accident, or on any other poor performer before an accident. Thus, there is no need to add a premium penalty (which cannot be accurately and fairly determined) on a licensee who may have had nothing to do with the accident and may have already paid a penalty or had its license suspended or revoked. Punishment and regulation of conduct should be left to the appropriate regulatory and enforcement mechanisms.

We have not seen any evidence of deficiencies that would require changes, such as the wholesale restructuring proposed in S. 44. The unlimited liability aspect of the bill would effectively destroy the intricate, carefully balanced, workable and societally desirable system of public compensation and economic efficiency achieved in the existing Price Anderson law. Like the now-abandoned 1983 NRC proposal for assessments for an indefinite period, S. 44 would make licensees insurers without

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health consequences in the United States, there is no actuarial base from which to derive rating factors such as are commonly applied, for example, to different makes and models of automobiles. It should be borne in mind that major nuclear accidents are extremely rare events and that actuarial techniques cannot be applied to such risks.

limit and without just compensation. We have opposed unlimited liability in any form as an abrogation of Congress' promise to provide liability coverage coextensive with exposure. Proposals to remove the limit on liability would not only breach the agreement between government and industry in reliance on which huge investments have been made, it would in fact penalize the industry for carrying out the task Congress solicited it to undertake.

S. 843

The third bill on which you have requested our views is S. 843. That bill is an unlimited liability version of H.R. 1414. The accompanying summary states: "There would be no limit on aggregate public liability."[4] The bill is similar in many respects to H.R. 1414, but contemplates, among other things, that Congress could collect unlimited retrospective premiums from utilities and make unlimited charges to the Waste Fund.[5]

The bill includes H.R. 1414's $63 million per reactor assessment, payable at the rate of $10 million per year, inflation indexing, and only a ten-year extension, but removes the limitation on liability. While it provides for apparently unlimited government indemnity, which is questionable as a matter of public policy (one that prior Congresses have declined to adopt), licensees would be exposed to potentially unlimited assessments for legal liability. In contrast, under the House bill, if Congress appropriates additional funds above the limit, it has reserved the right to enact a revenue measure applicable to an appropriate class, not to revive liability.

4/ Congressional Record (March 25, 1987), p. S 3884, I.5.

5/ As explained in the Congressional Record:

> "Congress could impose additional retrospective payments on utilities. It could impose fees on electricity produced by nuclear power or by other fuels. Or, the Congress could simply use general tax revenues." (p. S 3878)

At page 3884, the statement goes on to say as to liability for waste accidents exceeding an amount equal to the maximum financial protection for licensees, "Congress could make additional assessments from the Nuclear Waste Fund ... ".

Next, the bill and the accompanying introduction and summary are contradictory with regard to the treatment of the costs of investigating, settling, and defending claims.[6] The initial liability of licensees is limited to insurance proceeds, and excess claims are to be paid from government indemnity,[7] but the Congress could impose additional retros, fees, or taxes on utilities to reimburse itself.[8] The bill is thus unacceptable to licensees and their suppliers.

The explanation states that the unlimited liability/unlimited indemnity-in-excess-of-insurance approach is designed to create a stronger obligation on the federal government to provide for all damages on the same basis above and below the limit. While the explanation acknowledges that the courts can't force Congress to make appropriations, it argues that there is a difference between a contractual commitment and a hope that Congress will provide. We see no practical, political or legal deficiency in the entitlement of claimants to full compensation for actual losses even under present law: the Supreme Court read the present law in 1978 as providing that Congress is committed already. So far,

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6/ While the summary following the bill in the Congressional Record (p. S 3885) states that litigation costs for insurers and industry defendants cannot be paid out of insurance proceeds, deferred premiums, or government indemnity, the bill itself includes such costs in some places and excludes them in others, viz: (a) like H.R. 1414, the phrase "and costs" is stricken from the portion of section 170.b that deals with deferred premiums, but the definition of financial protection in section 11.k, which includes such costs, is unchanged; (b) the word "including" appears in the licensee indemnity section (170.c) while "excluding" is carried over from the 1975 Hathaway amendment in the DOE contractor provision (section 170.d); and (c) the word "including" also appears in the limitation-of-payments- to-the-proceeds-of-insurance [presently and under H.R. 1414 and Amendment 3238 limitation on liability] section, section 170.e.

7/ Amended section 170.e would limit claims payments to the proceeds of insurance, additional appropriations or borrowing in any one year. The similar amendment to section 170.o treats insurance policy limits like the present liability limit for purposes, inter alia, of orders staying the execution of judgments.

8/ New subsection 170.i would authorize the Congress to assess any person or persons, including any person that has already made payments to satisfy claims for public liability, as a

(Footnote 8 continued on next page)

Congress has deliberately reserved the right to decide after the fact what the priorities are and whether to provide compensation only for actual economic loss or also for emotional distress, solatium (pain and suffering), consortium (sexual companionship) etc.

Finally, as noted above, the bill would exclude defense costs from secondary financial protection and from the liability limit. Such an exclusion is unfair, unreasonable, and unworkable. Insurance for defense costs has always been required by the Act as a part of financial protection because it is needed as in any other system of liability insurance. It is needed for the system to be complete and to work. In fact, we do not know any feasible way to make the system work unless defense costs continue to be covered. The costs of investigating, settling, and defending suits for damages are a necessary corollary of Price Anderson's requirement -- and one of its keystones -- that nuclear liability insurance cover anyone who may be liable.

As drafted, the amendment seems to apply to the secondary, retrospective premium layer of required insurance. It is worth emphasizing that the retrospective premium coverage is insurance. The secondary (deferred premium) insurance policy is written by the same pools that write the primary policy, and is in fact excess insurance to the primary. It tracks the primary policy, as it must to fulfill the requirements of the Act, which means that it is written so as to cover not just one or more named insureds, but anyone who may be liable. As such, the primary and secondary insurance policies for each power reactor comprise the only nuclear liability insurance that does or can apply to the liability of anyone in the world for an accident at that reactor. Other liability policies have a "nuclear exclusion" since the insurance industry makes nuclear liability insurance available only through the pool policies.

(Footnote 8 continued from previous page)

source of funds to cover indemnification. The concept of assessment is not confined to a tax on an appropriate class. This provision appears broad enough to expose not only licensees, but also insurers and DOE contractors (because of its reference to those who have made payments to satisfy claims).

The explanation argues that industry accepted this concept last year; but what industry said was limited to a tax from which licensees would not necessarily be excluded, which might be an excise tax or other revenue measure, but certainly did not include further insurance premiums or nontax mill per kw charges.

Thus, any person who has ever had any role in designing, supplying components for, constructing, operating, modifying, maintaining, or repairing a given reactor derives his nuclear liability insurance exclusively from the primary and secondary insurance policies maintained as proof of financial protection. Since all liability insurance provides coverage to the insureds for both defense and claims payments, these policies are the only source of defense insurance. A blanket exclusion would deprive any and all defendants of existing insurance for defense costs.

While some commercial policies for single risks in other fields provide up to the policy limit (a much smaller amount than $160 million) for claims payment and additionally pay for the costs associated with settlement and defense without specified limit, no such policy is written in the amounts or on an "omnibus" basis as are those under Price Anderson. The insurance pools administer both layers of financial protection, which is a workable and efficient arrangement. One cannot reasonably expect the insurers to undertake to defend anyone and everyone against whom a claim might be brought without some kind of limit. Eliminating the costs of investigating, settling, and defending claims would thus mean that the insurers drop out. It might be supposed that the insurance pools could simply reduce the primary policy limits to leave a margin for claims expense, but they would probably still lose many, if not all, of their members. The member insurers have subscribed only for a fraction of a fixed amount, not an open-ended obligation. Who is left to pay these costs?

Either the licensee that had the accident would be asked to act as an insurer for all defendants' defense costs, or no one would have defense coverage even against frivolous claims. A licensee certainly cannot be expected to insure the whole world against defense costs. Indeed, a licensee would be unwilling to do this when you take the risk-spreading mechanism away from him -- one that he has already paid for in the case of reported claims and those incurred but not reported -- but in the case of a very large accident, the licensee would be insolvent and could not honor any such obligation.

Not only would the nuclear liability insurance pools lose capacity if such an exclusion were applied to the primary layer, they would almost certainly have to withdraw from administering the secondary layer if the exclusion applied to it. The same problems arise when you exclude this coverage from retrospective premiums as with primary coverage. Who pays? Who runs the system? No practical way has yet been identified to provide claims expense coverage for the secondary layer, with or without the pools, if it cannot be charged to the secondary policy limit (the sum of retrospective premiums due).

It is unfair and unwise to deprive insureds of coverage for their most fundamental exposure -- the costs of investigating and settling what appear to be meritorious claims and defending those that do not appear to have merit. And if the concern is that there may not be enough money to go around, it is unnecessary to exclude coverage for the vast majority of potential accidents -- those in which claims and defense costs would be amply covered by the policy.

It is unnecessary to exclude such costs even for accidents that exceed the liability limit, since Congress has the right (reserved explicitly in H.R. 1414) to enact a revenue measure to reimburse the Treasury for any expenditures it may make above that limit. If something has to be included on the subject of litigation costs, a better approach would be one along the lines of the provision contained in the year-end House bill, H.R. 5650, which would have provided for judicial supervision of costs if it appeared the liability limit might be reached. Indeed, the provisions in that bill to control litigation costs could be strengthened.

Such a provision would adequately address the only situation in which the perceived problem can arise, which is at most a temporary one under the bill on which S. 843 is modelled, given the reimbursement-through-taxation provision referred to earlier, and is certainly not needed in an unlimited indemnification bill (which we would caution against on public policy grounds as noted earlier).

Failing to retain defense coverage could create what professors of insurance like to call a "moral hazard". There might be the temptation on the part of defendants who are covered for claims but not defense to settle all of them at the asking price. In other words, the existing system allows for an adequate defense, and assuring an adequate defense makes it more likely that funds will go to those with valid claims as Congress intended and are not used up to settle or default on nuisance claims to avoid investigation and defense costs, since someone else has to pay them. Though the bill is apparently intended to exclude defense costs, there is, again apparently, no intent to exclude or control contingent fees or other plaintiff's costs, despite the waivers of defenses that should make recovery relatively straightforward. It seems patently wrong to do one without the other. Neither should be excluded so long as you are locked into the traditional adversarial system. The strengthening amendment for litigation cost control suggested above would modify existing section 170.o, and would thus control all litigation costs before payments of such costs or claims could exceed 15% of the funds to pay claims and costs.

Answers to Questions

Our responses to the questions posed in Senators Breaux's and Simpson's letter of April 10, 1987 are set forth below.

1. Do you support providing full compensation to victims of a nuclear incident?

   Yes, the public should be fully compensated for actual losses resulting from a nuclear reactor accident. The funds available under the two layers of insurance provided by present law for large power reactors should be sufficient for the vast majority of potential accidents. This coverage could and should be enhanced by reasonable increases in the second layer of private insurance. Congress would go to the limits of reasonableness in this regard if Amendment No. 3238 is enacted, since it would increase retrospective premiums to a $60 million maximum and the two layers of required insurance to about $7 billion with the present number of licensed reactors. That is certainly more than would be available if there were no Price Anderson system, voluntary insurance, and unlimited access to the assets of persons liable. Should that large fund prove insufficient, Congress has already committed to provide additional compensation in the last sentence of subsection 170.e., as amended in 1975. Amendment No. 3238 would enhance that commitment by providing expedited procedures for Presidential and Congressional action to provide further compensation if needed.

   Limiting liability does not have to mean limiting compensation. As previous Congresses have recognized over a thirty-year period, limitation on liability provides a stopping point beyond which rights to access to the courts and rights to full legal damages are not vested. Beyond that point, Congress may want to substitute an administrative remedy, and may be constrained to limit or exclude or defer payment of legal damages that do not represent actual economic losses. As indicated in the legislative history of the 1975 amendments, if there are insufficient funds to cover all damages, then both the court having jurisdiction and the Congress in making additional appropriations may wish to give preference to the most deserving claims, presumably including full compensation for all actual losses and expenses reasonably incurred.

The 1975 Report of the Joint Committee on Atomic Energy states:

> The Joint Committee has included in the legislation a direction and authorization for the court which develops the plan for distribution of funds in the event of a nuclear incident which appears to have resulted in damages exceeding the limit on liability to establish priorities between classes of claims and claimants. The Joint Committee wishes to assure that in such a case, where the immediate recovery by claimants may be less than the full amount of their losses, the distribution of funds will be made in such a manner as to compensate first for the most severe and the most readily computable losses. Thus claims for actual losses to property, for actual and reasonable medical expenses, for loss of wages, and other such losses may merit higher priority than such claims as those for alleged pain and suffering, emotional harm, and loss of consortium. Likewise, losses otherwise compensated for, while not precluded from recovery (under the collateral source rule) in most jurisdictions, should be accorded lower priority than uncompensated losses. The Joint Committee also believes that as a matter of equity, in cases where less than full compensation will be made through the amounts immediately available from insurance and Government indemnity, losses to offsite property of the licensee of the responsible facility should be accorded lower priority than losses to third parties. The court is authorized to establish such additional priorities as are deemed desirable and equitable to further the principles described above.
>
> The above provisions are in no way intended to create any causes of action not in accordance with existing law or to derogate any existing causes of action. Nor should these provisions be construed as a retreat from the belief expressed on

> many occasions by this Joint Committee and included in this bill that Congress would thoroughly review the situation in the remote event of a nuclear incident involving damages in excess of the limit on liability. The priorities are not intended to preclude ultimate relief for claims of secondary priority, but rather to assure that early relief is applied where most needed.
>
> (H. Rep. 94-648, Nov. 10, 1975 at 14-15)

Further, this subject is one of the tasks appropriate for a Presidential Commission such as would be provided for by both S. 843 and H.R. 1414, and it is, at a minimum, premature to remove the flexibility of future Congresses before such a study is even authorized..

2. Should causation and damages continue to be determined according to established standards of state tort law?

Yes. In that respect, we agree with the conclusion of the 1983 NRC report.

3. How large are the potential consequences of a nuclear accident?

The consequences of an accident at a nuclear power reactor range from no offsite consequences to severe offsite consequences in terms of health effects (both immediate and long-term) and extensive contamination of property. We are sure that the Committee is aware of some of the consequence estimates made in studies prepared for the Nuclear Regulatory Commission and its predecessor, the AEC in the past, for example WASH-1400. Those estimates, as well as draft updates of those estimates, may in fact greatly overstate the prompt health effects, the long-term health effects, and the contamination of property that might actually occur. This is primarily because, since the TMI-2 accident, we have learned a great deal about the amount of radioactive material that would actually reach the environment in the case of a fuel melting accident at a light water-moderated and-cooled reactor of U.S. design. Those source term studies, and NRC action thereon, are receiving additional study and review could conceivably change. In any event, it seems clear that the potential damages from a large accident could still exceed the resources of private insurance, and that it is prudent to continue the Price Anderson system for future nuclear plants.

4. Do you believe that the potential consequences of a nuclear accident are such that providing full compensation to the victims would likely cause economic hardship or severe disruption to the sources of funding for the accident that are specified in:

   (a) S. 44

   (b) S. 843

   (c) Amendment No. 3238?

   Both S. 44 and S. 843 would provide for unlimited liability, the former subject to an annual cap on retrospective premiums and the latter subject to whatever rate of collection a future Congress might decide. They would thus place an even greater burden on licensees than Amendment No. 3238, which, as we have indicated above, goes to the limits of what is reasonable. The issue is not so much economic hardship as it is whether Congress wishes to make private parties insurers without limit and without compensation, involuntarily and retroactively, when the amounts for which they would be committed under the whopping increase that would be brought about by Amendment No. 3238 produce amounts that far exceed what any voluntary insurance arrangement and unlimited liability could produce.

Conclusion

Price-Anderson achieves the goals that Congress has had for it and its basic structure ought to be preserved. This committee should report a bill that would do this, while enhancing the public benefit features of the law: Amendment No. 3238.

Statement of M.G. Johnson
on behalf of the
American Nuclear Energy Council

Before the
Subcommittee on Nuclear Regulation of the
Committee on Environment and Public Works

United States Senate

April 30, 1987

Mr. Chairman and Members of the Subcommittee:

I am M.G. Johnson, Special Counsel, Bechtel Power Corporation, appearing here today to testify on behalf of the American Nuclear Energy Council with respect only to the government contractor provisions of the Price-Anderson Act (Section 170(d) and related sections). As requested in the Subcommittee's letter of April 10, 1987, the bulk of my testimony will relate to S. 44, S. 843 and Printed Amendment No. 3238.

DOE nuclear research and defense facilities, with its own personnel, are absolutely essential to the defense and general welfare of the United States and its citizens. In order to design, build and operate those facilities, DOE is dependent upon its contractors. Even if the government were capable of designing, building and operating those facilities, the entire program would become an example of total futility without the support of the thousands of suppliers who provide the components of the nuclear facilities, and many of those components are identical to the products manufactured and sold by those same suppliers to their commercial customers. For many contractors, the supply of goods and services to DOE nuclear facilities represents an insignificant amount of their total business. While DOE might be able to design, construct and operate its nuclear facilities with government personnel, it could not, with government personnel, design and manufacture the hundreds of thousands of components which are incorporated into those facilities. Those many suppliers are totally dependent upon Price-Anderson for their financial protection against nuclear liability, and any changes in Price-Anderson which diminish that protection will have a major impact upon their willingness to continue providing the equipment and materials which are so vital to the DOE nuclear program.

We have noticed a growing tendency on the part of the participants in the Price-Anderson government contractor debate, including many members of Congress, to focus their attention on the major companies who undertake the larger contracts for design, construction and operation of DOE facilities to the exclusion of the thousands of suppliers, and often small subcontractors, who are equally important to the success of the DOE nuclear program. With respect to Price-Anderson, those smaller entities are interested primarily in their ability to provide goods and services to DOE and its contractors without being exposed to risks substantially greater than the risks inherent in their commercial business. The larger contractors generally pursue the same objectives and, to avoid serious adverse impact on the willingness of those engineers, contractors and suppliers to continue DOE nuclear business, the extension of Price-Anderson is going to have to respond to their concerns.

In addition to inducing private industry participation in nuclear matters, the enactment of Price-Anderson was, and is, intended to provide adequate compensation to victims of a nuclear incident. Since few, if any, of the government contractors who might be held liable for a major nuclear incident possess the financial assetts sufficient to pay a substantial judgement, and since their liability insurance policies will include a nuclear exclusion, victims of a major nuclear incident will not receive adequate compensation except to the extent that Price-Anderson provides the funds. For both the victims and the contractors, the Price-Anderson indemnity is the sole substitute for nuclear liability insurance. Accordingly, the legislation extending Price-Anderson should provide for mandatory Government Contractor indemnity (as is the case now under Section 170(c) for licensees) to replace the discretionary indemnity now provided by law.

Since 1957, Price-Anderson Section 170(d) and related provisions have provided for both an indemnity to the government contractor and a limit of liability for nuclear incidents, both in the amount of five hundred million dollars. Because it was understood that the Price-Anderson arrangement would effectively preclude the imposition of financial responsibility on contractors as a result of nuclear risks or hazards, neither the DOE and its predecessors nor the contractors took into consideration any financial compensation for the risks of a nuclear incident. Since past activities of those contractors could very well be alleged to be the cause of a nuclear incident occurring at some future date, it is imperative that the new higher indemnity which is expected to be included in the Price-Anderson extension legislation be automatically extended retroactively to all activities previously covered by the five hundred million dollar indemnities granted by DOE or its predecessors. Otherwise the contractors will be exposed to an uninsurable risk for the difference between the existing limits of liability and whatever higher limits are specified in the extension legislation. Any nuclear incident victims, therefore could lose the benefit of the new, higher indemnity.

Although not included in any of the three bills which are the subject of this hearing, the subject of civil penalties or subrogation being imposed on contractors in the event of a nuclear incident has recently been injected into the Price-Anderson debate. Because creation of subrogation rights against contractors and civil penalties of the magnitude being discussed represent such a major departure from the basic Price-Anderson concepts which have been inherent in the law for thirty years, and because they would constitute such a significant disincentive to the continued participation of contractors in the DOE nuclear program, we think it appropriate to express our views on that subject in this testimony.

The imposition of multi-million dollar civil penalties or the creation of subrogation rights against contractors, are solutions to a problem which past experience indicates does not exist. In the first place, we have seen no evidence that DOE contractors have in the past been guilty of gross negligence or willful misconduct in the performance of their contracts and are convinced that if any such misconduct were to occur in the future, that existing law provides an adequate remedy without adversely affecting the willingness of contractors to participate in DOE nuclear programs. Certainly knowing and willful violations on the part of a contractor which results in serious injury or death or major property damage would constitute a felony under the laws of every state, and it is submitted that such laws constitute an effective deterrent to irresponsible acts by contractors. In addition, prosecution under existing law would not destroy the constitutional rights of those contractors as would the imposition of multi-million dollar penalties as part of the Price-Anderson system. In a civil case the contractor would not have complete access to the facts on which the government's case is predicated, nor the right to trial by jury which would require a unanimous jury verdict to sustain conviction. In addition, the contractor would not have the benefit of other rights afforded even the most despicable criminal defendant. Under most proposals, the contractor could be held liable for the knowing and willful violations of very low level employees acting contrary to the established policies of his or her employer. Furthermore, since many DOE facilities involve defense work, with its attendant secrecy requirements, most of the contractors, particularly the suppliers, are not privy to the interrelationships of their scope of contract with the facility as a whole, and for the most part would not have the technical expertise to appreciate the potential consequences of deficiencies in their goods or services, even if they had that information.

The example of other countries which have enacted nuclear liability and insurance legislation is enlightening with respect to this subject. To the best of our knowledge, no other national nuclear liability legislation deals with this matter in a fashion similar to that being proposed in this Congress. A number of those countries do provide for the imposition of responsibility on natural persons (individuals) whose willful misconduct is responsible for a nuclear incident, but the employer is not so treated. Application of substantial civil penalties or subrogation rights against contractors would hardly be consistent with the intent of the Paris Convention and the Vienna Convention, the two international treaties which deal with nuclear liability.

If members of Congress believe that civil penalties or subrogation rights should be incorporated into American nuclear liability law, it would seem appropriate to consider the matter in a different context, with a thoughtful review of the entire situation, rather than as a visceral reaction to a perceived problem which experience indicates is non-existent. Testimony should be obtained from DOE as to its past experience to determine whether new legislation on this subject is necessary or desirable. Law enforcement agencies, including local prosecutors, should be queried as to whether they believe that new law is necessary. If it is then concluded that Congress should act, any proposed legislation should be carefully drafted so as to protect the constitutional rights of the accused.

While the subrogation concept may be superficially attractive to those willing to take a simplistic approach to this very important subject, a review of the entire Price-Anderson system demonstrates the inequities inherent in passing on to contractors the financial responsibility for repayment of amounts paid to claimants under the Government indemnity. In the case of an extraordinary nuclear occurrence, the conduct of neither the claimant nor the defendant would be an issue in the case. Fault is not a factor; only causation, together with the amount of damages suffered by the victim is important. Following such an incident, the victims are going to recover, and there will be extreme pressure on the Government to recover those damages from the contractors. With the benefit of hindsight, acts or ommissions which at the time of their occurrence would have been considered to be relatively innocuous will now be characterized as willful misconduct or gross negligence at least. Without far more deliberation and investigation than the subject will be given in the context of Price-Anderson extension legislation, it would be highly irresponsible for the Congress to impose such a questionable scheme upon the framework of the Price-Anderson Act, the principal purposes of which have been considered for thirty years to be victim compensation and inducement of private industry to participate in nuclear activities, neither of which purposes are furthered by the proposed civil penalties or subrogation rights.

In the event that some members of Congress feel it necessary to provide for the imposition of further penalties on Government contractors in the event their gross negligence or willful misconduct results in a nuclear accident, it is suggested that it would be far more appropriate for those measures to be the subject of a separate bill, and not tied to Price-Anderson. This would allow it to be subject to the same thorough scrutiny given to the Price-Anderson extension legislation during the past two years. Prompt extension of Price-Anderson should not be deferred, because the DOE authority to grant indemnities and thereby limit the liability of contractors will expire in little more than ninety days and those contractors and suppliers entering into contracts with the DOE or its contractors are today doing so in the good faith belief that they will not be exposed to substantial financial liability for nuclear risks and hazards. The Congress could then obtain testimony from the DOE as to its past experience to determine where any rational basis exists for such a measure and could also obtain DOE's testimony as to whether new legislation is necessary. Testimony from federal and state law enforcement agencies and prosecutors would also be enlightening on the subject of the need for such legislation. Testimony from the contractors and suppliers might also be of value in an effort to predict the negative impact of such legislation on their willingness to continue their participation in the Government research and defense programs. Contractors might also, if given the opportunity to carefully study any proposed legislation, be in a position to propose alternatives which would satisfy the proponents of the concept without trampling the fundamental rights of those contractors and suppliers.

Turning to the three bills which the Subcommittee's letter requested be specifically addressed, and in the order listed in that letter, we have the following comments.

S. 44 is generally satisfactory to the Government contractors. However, since many contractors are also involved with NRC licensees, we share the utilities' concerns about S. 44. Two items, the significance of which may have been lost in the emphasis on more controversial matters, do require attention if the bill is to achieve its purpose with respect to contractors. First, there should be inserted, with respect to contractor indemnities, the same kind of language included in Section 5 of the bill, modifying Section 170(e) of the Atomic Energy Act, which would make the funds provided by the Government indemnity the exclusive source of payments for public liability claims. If this is not done, the contractor could be bankrupted if a successful plaintiff levied on the contractor's assets before the Government indemnity had responded. This is certainly not an intended result. Secondly, we believe that the granting of the indemnity should be mandatory (as is provided in S. 843) whenever a contract involves a risk of public liability (which by definition in the Act means nuclear liability). By its internal regulations, DOE has made it extremely difficult from a public relations standpoint to grant a Price-Anderson indemnity unless it concedes the existence of the possibility of a substantial nuclear incident. If no indemnity is granted, the victims will not be compensated except to the very limited extent of the defendant contractor's assets, and the whole purpose of Price-Anderson will have been frustrated. Just as the licensee indemnity is mandatory under Section 170(c) of the Atomic Energy Act, the Government contractor indemnity under Section 170(d) should also be mandatory.

With respect to Government contractors, S. 843 is generally acceptable, however, again we share the concerns of the utilities over the licensee provisions of the bill. We have the same reservation and suggestion as to source of payments to victims proposed above relative to S. 44, but with the added reservation that as taxpayers we are greatly concerned that the absence of a limit on liability (which is also a problem with S. 44) may lead to unwise and unjustified expenditure of public funds. We do prefer the fifteen year extension of DOE's indemnification authority as provided in S. 44, to the ten year extension under S. 843 and, in fact, heartily recommend that the extension be made permanent, subject, of course, to the existing authority of Congress to amend the Act on a prospective basis at any time. We note with approval that S. 843 does make provision for a mandatory indemnity.

Amendment No. 3238 raises the issue of discretionary versus mandatory indemnification for government contractors discussed above relative to S. 44. In addition, it does not limit the source of victim compensation to payments made pursuant to the indemnity, a problem discussed above with respect to S. 44.

Because Amendment No. 3238 increases the contractors' liability substantially above that provided by Price-Anderson since its inception in 1957, while appearing to similarly increase the indemnity only for new contracts executed after passage of the Amendment, those contractors and suppliers who have, for thirty years, served the DOE and its predecessors are now faced with an uninsurable, potentially catastrophic loss because of their past contract activities. Goods and services provided many years ago could well be blamed for some future nuclear incident. When those past contracts were executed, both the contractors and the Government proceeded on the basis that they involved no financial risk to the contractor growing out of nuclear risks and hazards. Simple justice would seem to require that if the liability is to be imposed, the comparable protection should follow. To avoid the necessity of DOE having to retroactively amend all of its past nuclear contracts (and those of its predecessors), many of which have long since been closed out, it is suggested that all previous Price-Anderson indemnities provided under Section 170(d) be increased automatically by statute to an amount equal to that provided in the new legislation for future contracts.

We very much appreciate the opportunity to present our views to the Subcommittee with respect to this very important legislation and will be most happy to respond to any questions.

PRICE-ANDERSON PRE-HEARING QUESTIONS

The following responses to the questions attached to the Subcommittee's letter of April 10, 1987 to M.G. Johnson are confined to the government contractor aspects of Price-Anderson [Section 170(d) and related provisions of the Atomic Energy Act of 1954, as amended.]

1. Do you support providing full compensation to victims of a nuclear incident?

We do support full compensation to nuclear incident victims and are of the opinion that the current Price-Anderson Act makes adequate provision for such full compensation. With the increased limits of liability proposed in most of the bills presently pending in Congress, there is even more assurance that the Department of Energy indemnification of its contractors will be adequate in amount to fully compensate all nuclear incident victims without resorting to further action by Congress. [This will be true, however, only if the DOE indemnity is made mandatory for contracts that involve the risk of public liability. S. 843 does that, but under both S. 44 (except with respect to activities related to high-level nuclear waste) and Printed Amendment No. 3238 the government contractor indemnity is discretionary with DOE.] Without the mandatory indemnity there exists a very real possibility that there will be inadequate compensation available for nuclear accident victims.

2. Should damages and causation continue to be determined according to established standards of state tort law?

Since, at least with respect to government contractor liability to nuclear incident victims, the U.S. Government (by virtue of its indemnity) is the real party in interest, consideration should be given to limiting victim compensation in the same manner as all other tort suits against the Federal Government are handled under the Federal Tort Claims Act, at least to the extent of precluding recovery for non-economic loss, including punitive damages. The legal system of most countries precludes recovery of non-economic loss on the grounds that such damages are purely speculative. There is ample precedent for such treatment of non-economic loss in the Workers' Compensation laws of most American states which, in return for eliminating the claimant's burden of proving negligence on the part of the employer, typically provide compensation only for medical costs and lost wages and preclude further suits by the employee against the employer for other damages. In the event of an extraordinary nuclear incident, under both the existing Price-Anderson Act and most of the legislation now being proposed, state law becomes relatively unimportant because Price-Anderson has the effect of reducing both the defendant's available defenses and the plaintiff's burden of proving fault. In the event of a nuclear incident which is not an extraordinary nuclear occurrence, by far the more probable situation, application of state tort law has, so far as we know, created no particular problems in the past.

3. How large are the potential consequences of a nuclear accident?

Since there is so much variation among the DOE nuclear facilities, many of which, being defense related, are necessarily governed by strict security requirements and since there have been no published DOE studies of the consequences of a potential nuclear incident, so far as we know, we have no technical basis for predicting the consequences of a nuclear incident at a DOE facility. The only evidence we have seen which would have a bearing on that subject is the testimony by the Acting Assistant Secretary of Energy, Nuclear, in hearings before the 99th Congress to the effect that the total claims paid by DOE pursuant to the indemnity during the almost 30-year history of Price-Anderson totalled less than $1.5 million.

4. Do you believe that the potential consequences of a nuclear accident are such that providing full compensation to the victims would likely cause economic hardship or severe disruption to the sources of funding for the accident that are specific in:
(a) S. 44?
(b) S. 843?
(c) Amendment No. 3238?

Since the source of funding for the government contractor indemnity is the U.S. Government, under the existing Price-Anderson Act and, except for nuclear waste activities, all of the current extension proposals before the Congress, it is not likely that providing full compensation to nuclear accident victims will cause economic hardship or severe disruption to the sources of funding. With respect to nuclear waste activities funded by the Nuclear Waste Fund, S. 843, S. 44 and Amendment No. 3238 all establish the Nuclear Waste Fund as the source of funding for the indemnity. Since that Fund is dependent upon assessments imposed on the electric power nuclear generating industry, it would be inappropriate for the government contractors to pass judgement on the economic effect of indemnity payments being made from the Nuclear Waste Fund, and accordingly, we will defer to the representatives of the electricity generating companies on that subject.

Statement of Omer F. Brown, II
on Behalf of
Energy Contractors Price-Anderson Group

Before the
Subcommittee on Nuclear Regulation
Committee on Environment and Public Works
United States Senate

April 30, 1987

Mister Chairman and Members of the Subcommittee:

My name is Omer F. Brown, II. I am a partner in the Washington, D.C. office of Rivkin, Radler, Dunne & Bayh, legal counsel to the Energy Contractors Price-Anderson Group.[1] We appreciate this opportunity to testify before your Subcommittee and the fact that you have scheduled this hearing about extension of the Price-Anderson Act.

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[1] The Energy Contractors Price-Anderson Group is an ad hoc group composed of Allied-Signal, Inc. (Bendix Aerospace); The Babcock & Wilcox Company; Battelle Memorial Institute; The Boeing Company; General Dynamics Corporation; General Electric Company; and, UNC, Inc. Each of these entities now is covered by one or more nuclear hazards indemnity agreements with the U.S. Department of Energy (DOE) under Section 170d of the Price-Anderson Act.

As requested, this testimony specifically will address the potential effects on DOE contractors of certain legislative proposals that would amend the Price-Anderson Act: S.44 (the Moynihan Bill); S. 843 (the Stafford Bill); and, Printed Amendment No. 3238 (the October 6, 1986 version of S.1225 (the Simpson-McClure Bill), the DOE contractor provisions of which were reintroduced this year as S.748 (the Johnston-McClure Bill)). Since the DOE contractor provisions of Amendment 3238 are now embodied in S.748, we will refer to that bill for convenience in this statement. Attached are our responses to the questions submitted with your invitation letter

We recognize that this Subcommittee is concerned mostly about nuclear liability coverage for activities licensed by the U.S. Nuclear Regulatory Commission. However, we first would like to stress the need for prompt extension of the DOE contractor provisions of the Price-Anderson Act as far as possible in advance of the August 1st expiration of DOE's statutory authority to enter into new nuclear hazards indemnity agreements.

Even though more attention historically has been focused on liability coverage for NRC licensed facilities, such as nuclear power plants, Congress also should be concerned with public protection for risks arising out of DOE activities. In fact, with no new power plants now being ordered, the present expiration date is of more immediate concern with respect to DOE contractor coverage, because it is clear that DOE will be entering into or renewing contracts for various nuclear activities, including those under the Nuclear Waste Policy Act, after August 1, 1987. Four important DOE prime contracts expire on September 30, 1987 (i.e., those for Hanford, Los Alamos, Lawrence Berkeley and Lawrence Livermore). The prime contracts for Brookhaven National Laboratory and the Nevada Test Site expire on December 31, 1987. Even if negotiations on these specific contracts can be completed before August 1st, there are concerns that Congress may make significant prospective or even retroactive changes in the Price-Anderson Act.

We submit that Price-Anderson coverage for DOE contractors should be extended as it has been twice before. Subsection 170d of the Price-Anderson Act authorizes DOE until August 1, 1987 to enter into indemnity agreements with certain of its contractors for protection of the public in the unlikely event of a nuclear incident. While the Federal Government's own nuclear activities (which usually are carried out by contractors) have had an extraordinary safety record, the possibility of a serious accident resulting in damages to the public unfortunately cannot be eliminated totally. Price-Anderson provides an assured and exemplary system of protection for the public in case that unlikely event ever happens.

Since 1957, the Federal Government has paid less than $1.5 million under indemnity agreements for claims involving government contractors. This fact is illustrative of the safety of DOE contractor activities. It also provides overwhelming evidence that the Price-Anderson system is not "broken" and thus should not be "fixed".

We agree with the conclusion expressed in the August 1983 DOE Report to Congress (and reiterated by DOE in hearings before this and other Congressional Committees over the last three years) that the Price-Anderson indemnity system should be continued to ensure furtherance of DOE's statutory missions in research and development, production, defense and other nuclear fields, and protection of the public. Indeed, as DOE indicated, there would be strong reluctance on the part of existing and potential contractors to do nuclear business with the Department if DOE's authority to enter into Price-Anderson indemnity agreements were discontinued. The strong reluctance would apply especially to suppliers whose nuclear activities are only a small percentage of their overall businesses. This would lessen competition and otherwise increase costs to the Government. The strong reluctance also would extend down tier lines to subcontractors and equipment suppliers, including many small businesses throughout the country, who might be liable for a serious accident but not have the financial resources to cover that liability or the legal defense costs associated with such litigation.

Indemnification of government contractors for possible nuclear losses has been provided since the days of the Manhattan Engineer District of the War Department in the early 1940's. Subsection 170d by its terms merely supplements other authority DOE has to indemnify its own contractors. Price-Anderson, however, rounds out that authority so as to better assure the protection of the public at large and to provide the requisite protection for contractors, subcontractors and suppliers to assure the widest possible participation in DOE contract activities of the most qualified members of the American private sector. Reducing the number of potential contractors and suppliers to DOE would obviously have an adverse impact on DOE costs, but of even greater concern also would have an adverse impact upon the overall quality and safety levels of DOE contract work since the most qualified and most safety conscious contractors and suppliers would most probably be the first to abandon DOE work because of inadequate liability protection. Contractor coverage prior to the Price-Anderson Act often was inconsistent, subject to individual contract idiosyncracies, inapplicable to subcontractors, and subject to the availability of appropriated funds. Subsection 170d was carefully designed to correct many of these deficiencies and to provide a uniform system of public protection.

The Price-Anderson system specifically was developed to provide assurance that significant sums of money would be available over an extended period of years to make prompt payment to victims in the remote case of an accident. The only fundamental change since the original adoption of Price-Anderson in 1957 (other than the effects of passage through inflationary periods of time) has been the revolutionary change in the American tort system, most of which has occurred over the last ten-year period.

This change has increased greatly the unpredictability of the probable dollar damages resulting from any major accident, whether it be nuclear or non-nuclear in nature. This makes a system such as Price-Anderson only more essential for the period beyond 1987.

At the same time, it is critical to remember that the Price-Anderson program does very little to change the existing tort system, except to guarantee the funds being available to satisfy the tort determinations and to make recovery even easier in the event of an "extraordinary nuclear occurrence" through the waivers of defenses incorporated in Price-Anderson in 1966. While commercial liability insurance virtually has disappeared in many areas of exposure where predictability is greater than it is in the nuclear area, it is interesting to note that to date there has been no indication of a significant reduction in private commercial insurance available in the nuclear area, even though the same underwriters are involved in both areas. This can be explained only by the existence of Price-Anderson and its beneficial aspects in making a virtually unpredictable exposure at least manageable under its current provisions. It is instructive to note the results of claims brought following the Three Mile Island accident and compare them with other cases, such as the Bhopal tragedy in India.

Some have suggested that indemnifying contractors against nuclear liability somehow acts as a serious disincentive to safety at DOE facilities or lessens contractor accountability. This is simply not the case. DOE contractors have a number of incentives to act safely. Price-Anderson indemnity covers only nuclear liability. Contractors still are exposed to conventional, nonnuclear liability for which they may or may not have insurance coverage and which has a history of much greater damage awards in the past than nuclear claims. It is difficult to visualize how a contractor or supplier could design and execute his work or his product to be reasonably safe as respects nonnuclear exposures and unsafe as respects nuclear exposures, even if one were to suggest a diabolical motivation to begin with. Poor contractor performance could lead to debarment from future DOE contracts, and could be damaging to their reputations. The present indemnity is similar to insurance that prudent contractors, if they could, would purchase to protect themselves, and there is no more valid a reason to consider it a disincentive to safety than one would consider the purchase of liability insurance by an individual or a corporation to be a disincentive to safety. There are existing criminal laws to punish egregious behavior.

Some also have suggested that the Department of Defense (DOD) does not provide its contractors with coverage as broad as that afforded under Price-Anderson. However, they have failed to recognize the fundamental differences between DOD and DOE contractors, and between coverage under Public Law 85-804 and the Price-Anderson Act. Under Public Law 85-804, DOD indemnity for ultrahazardous or nuclear risks is in excess of the greater of private insurance required by DOD or carried by the contractor.

Major DOD contractors carry private insurance (generally under corporate "blanket" policies) significantly in excess of amounts required by DOD and frequently in excess of $200 million. There is a significant base of non-catastrophic loss experience involving DOD contract work and a large base of contractor and supplier activity, which can provide a legitimate base for commercial insurers to underwrite and rate this class of business. DOE contractors, on the other hand, are not able to purchase insurance for nuclear risks. There is a much narrower base of DOE contractor activity to develop a realistic basis for either underwriting or rating the nuclear risk. Price-Anderson coverage is a substitute for this unavailable commercial insurance coverage (which, if it were available, would be added to DOE contractor's allowable costs of doing business with the Federal Government).

Obviously influenced to a great degree by the long and extensive involvement in DOD contract activity, there is a general perception that the catastrophic exposure in DOD work is considerably less severe than that perceived in the nuclear area in the extremely remote chance of a major nuclear incident. With current and projected DOD contract activities, this perception is not held by all, and may be considerably more a case of perception rather than fact. For many years, several DOD contractors have been seriously questioning the adequacy of Public Law 85-804 indemnity and strongly urging an overall government contractor liability program tracking more closely the pattern of the Price-

Anderson system.

There is a limited restriction in Public Law 85-804 indemnity based on willful misconduct or bad faith on part of directors, officers or principal officials. However that limitation only applies to claims by the Federal Government (e.g., for damage to government property) and claims for damage to contractor's own property. Public Law 85-804 coverage contains no restriction as to third-party claims for injury or damage. Furthermore, there is no exception or restriction in underlying private insurance carried by DOD contractors based upon degree of fault. Their coverage is based on "legal liability" regardless of the basis of such liability.

There have been proposals before some Committees of the Congress to amend Price-Anderson to allow subrogation against contractors based upon their "gross negligence" or "wilful misconduct". While on the surface this may appear relatively innocuous or to be a desireable means of assuring greater "contractor accountability", such is not the case. If such a provision were to be grafted upon the carefully balanced Price-Anderson system, with its dual purpose of providing prompt compensation to victims of a nuclear incident and encouraging private industry to participate in the nuclear business, whether on the Government contractor or civilian side. Any subrogation provision, even one limited as mentioned above, would undermine the fundamental "omnibus" coverage/economic channeling feature whereby anyone liable for a covered nuclear incident is provided liability protection under the single umbrella of Price-Anderson. Potentially liable parties could not rely upon the umbrella protection if part of their exposure were left outside of the umbrella. All potentially liable parties would be compelled to hire their own lawyers to protect their uncovered exposure; extended investigations, negotiations, and probably litigation would ensue. The net result of any such provision would be to horribly complicate and greatly delay any payment to victims and to discourage many contractors, subcontractors and suppliers from participating in the nuclear business, both results being in direct contradiction of the two prime purposes of the whole Price-Anderson system.

Similarly, elimination of investigation, settlement and legal defense costs from DOE contractor coverage would undermine the fundamental Price-Anderson system. Price-Anderson indemnity is the only substitute for unavailable private nuclear liability insurance, which, if it existed, would provide coverage for settlement and legal defense costs. Eliminating coverage for costs also, for example, would create conflicts of interests by making different parties responsible for (1) indemnification and (2) investigation and defense. Any separation of indemnity and defense costs also would operate counter to the two primary purposes of Price-Anderson and would delay payment of victim compensation as well as discourage full industry participation in the nuclear business.

At this point, I would like to address briefly the major changes that would affect DOE contractor coverage under Price-Anderson suggested by the bills we were asked to discuss.

S.44 (the Moynihan Bill)

S.44 would appear to leave in place the present $500 million indemnity and limitation on liability for DOE contractors, except those involved with the nuclear waste program. Under S.44, the Federal Government would assume responsibility to provide, under the Price-Anderson Act and in part through use of the Nuclear Waste Fund paid by power plant operators, unlimited indemnity for public liability claims resulting from nuclear waste activities. We are concerned that since, under subsection 170j, indemnity agreements are not subject to appropriations and since public liability claims are governed by State tort law, adoption of S.44 would amount to Congress writing a "blank check" in advance of an incident for full compensation under State law, including all of the excessive costs of tort system. No good reason is apparent for treating the handling of nuclear waste differently from treatment accorded other Government nuclear activities.

S.44 also would eliminate coverage for punitive damages by amending the term "public liability". If punitive damages are to be allowed under the applicable legal jurisdiction, it is absolutely essential that such damages also be covered under the DOE indemnity or whatever financial protection mechanism is established under Price-Anderson. Unless punitive damages are effectively barred by enforceable legislation, any removal of coverage for punitive damages from the financial protection of Price-Anderson would shatter both the public protection features of Price-Anderson and the incentive to make the most qualified contractors available to DOE. We would not and could not endorse any legislation that allowed punitive damages to be awarded unless the financial protection and/or indemnity protection also covered such damages coextensively. We do endorse the concept in S.748 that would prohibit any court from awarding punitive damages in any action with respect to a nuclear incident against a person to whom the United States is obligated to make payments under an indemnification agreement. The latter would be consistent with the Federal Tort Claims Act, and recognize the widespread misuse of punitive damages claims in today's tort law.

S.843 (the Stafford Bill)

S.843 (including Stafford Amendment No. 48 from the Congressional Record of March 25th) would place no limit on either DOE contractor liability or Federal Government indemnity. This also would amount to Congress writing a blank check for plaintiffs' lawyers and State juries. We believe it is more appropriate to set some threshold, such as the already very high figure of $6 billion in S.748, at which Congress would take another look at how to handle claims from an accident causing damages in excess of that figure.

S.748 (the Johnston-McClure Bill)

While we have no problem with most of the DOE contractor provisions of S.748 as marked up by the Energy and Natural

Resources Committee through April 22d, there are a relatively few provisions we believe still should be changed or clarified:

With the very large increase in the limitation on liability and indemnity (from the present $500 million to $6 billion for DOE contractors) provided S.748, we are concerned about potential "cash flow" problems for indemnified contractors and subcontractors in the event of a large accident. Since Price-Anderson provides "indemnity" as opposed to "hold-harmless" coverage, a DOE contractor, subcontractor or supplier might find itself having a large judgment executed upon it long before DOE actually would pay the indemnity amount. We therefore suggest that the bill be modified to include a provision that the DOE indemnity shall be the exclusive source of payments for public liability claims involving DOE contractor activities. In fact, section 3b(2)(D)(iv) of Amendment No. 3238 (the October 6, 1986 version of S.1225) contained such a provision with respect to nuclear power plant coverage. We believe a like provision should apply to DOE contractors as well.

At its April 22d markup, the Energy and Natural Resources Committee added certain DOE contractor civil and criminal penalty provisions to S.748 (subject to further amendment at its next markup). We submit that Price-Anderson is not the appropriate legislative vehicle for any new civil or criminal penalties, and that the provisions added to S.748 last week are unnecessary and go beyond what is fair, reasonable and specific as to their application. For example, if Congress determines that new civil penalty provisions are appropriate, we believe they should be related to a violation by specified senior management, rather than any individual employee of a contractor, subcontractor or supplier. Additionally, any penalties for violating DOE safety requirements should not be tied to the Price-Anderson terms of "nuclear incident" or "extraordinary nuclear occurrence".

The DOE contractors we represent believe it should be mandatory for DOE to provide liability coverage for contractors and suppliers in connection with government nuclear activities that could result in injury or damage. It then could be applied in more situations, such as waste management facilities, in the interest of maximum public protection. Under the current discretionary indemnity program, DOE (for any number of reasons or for no discernible reason at all) could fail to extend indemnity to a specific contract activity that later proved to have a significant hazard by actually causing a major nuclear incident. Such a result might be embarrassing for the Government, but would be devastating to the contractor involved and to the victims who would be left with virtually no possibility of recovering anywhere near their full damages. On the other hand, if DOE indemnity were made mandatory or self-executing in the statute for all DOE contracts involving any nuclear exposure, it is true that some activities may be covered unnecessarily by indemnity. However, no harm would be done, no discernible cost would be incurred by the Government, and everyone would be assured that the necessary indemnity and public protection would be in place if required.

S.748 as marked up by the Energy Committee through April 22d contains several new provisions concerning coverage for "precautionary evacuations". While in principle we support coverage for precautionary evacuations, we are concerned that some might interpret that bill's provisions as limiting coverage to only certain situations enumerated in the bill, such as in cases where the evacuation was ordered by an authorized officer of a State or a political subdivision. If there is to be coverage for precautionary evacuations, coverage should apply in all circumstances where there is liability for such under applicable law. This would be more consistent with other Price-Anderson provisions covering "any legal liability". Section 5(c) of H.R.1414 (the Udall-Sharp Bill) and Section 5(c) of S.843 (the Stafford Bill) would appear to eliminate this potential problem by providing that no court may award costs of a precautionary evacuation unless such costs constitute a "public liability" as defined in the Act.

S.748 as marked up by the Energy Committee through April 22d would extend the entire Price-Anderson Act for thirty years. We believe consideration should be given to making the contractor coverage provision permanent, subject to periodic review by Congress.

* * *

In conclusion, after nearly thirty years of Price-Anderson Act indemnification, private industry has assumed, as Congress intended, a larger role in assisting the Federal Government in carrying out its own nuclear activities without any significant damage or injury to the public. In other words, Price-Anderson contractor indemnification is a system that has worked well. It should promptly be extended again.

Thank you again for this opportunity to testify before your Subcommittee.

Attachment

Responses of
Energy Contractors Price-Anderson Group
To April 10, 1987 Questions of
Subcommittee on Nuclear Regulation
Committee on Environment and Public Works
United States Senate

1. Do you support providing full compensation to victims of a nuclear incident?

We have strongly supported the basic premises of Price-Anderson under its current provisions which guarantee "full-compensation" to victims under applicable State law within the statutory limitation of liability and provide for Congressional action to provide payments in excess of such limitation, without necessarily being faced with all of the present trappings of the tort law system which would apply within the limitation of liability.

Damages apt to flow from an incident that does not qualify as an "extraordinary nuclear occurrence" are not so peculiar or unique that they cannot be handled under the normal rules of law on the same basis as damages that flow from other incidents involving commercial or government contractor activities. Damages that are apt to flow from an "extraordinary nuclear occurrence" and especially from a major nuclear accident (which is extremely unlikely but not totally impossible) create unique and serious problems which do justify extraordinary measures to assure prompt and reasonable payment to victims. The Price-Anderson system was designed to accommodate just such a remotely probable, but not impossible, situation.

We would not object to those proposals which suggest a substantial increase in the limitation of liability, if those funding the losses within such limitation (the nuclear utility industry and the Nuclear Regulatory Commission for licensed reactors and the Department of Energy for government contractor activities) are willing to and capable of guaranteeing the ready availability of cash funds to meet settlements or judgments in these amounts in the extremely remote chance that they are called upon to do so.

However, we do not support proposals to effectively eliminate the statutory limitation of liability even in those areas where financial responsibility for such unlimited liability is completely accepted by the government under contractor indemnity provisions. While it may be perfectly proper for the government to be committed to provide "full compensation" beyond the statutory limitation of liability, we do not feel that it is good policy to statutorily commit the government to provide such compensation in such a manner as to be forced to carry all of the present trappings of the tort system, including an almost limitless series of possible noneconomic damages and the payment of full contingency legal fees on all cases where most of the normal "contingencies" have been already eliminated. We would submit that the current provisions of Price-Anderson make more sense and create better policy where the Federal Government retains some flexibility in determining the priority of payments and the basis of determining recoverable damages where total damages do exceed a very substantial statutory limitation of liability.

2. Should damages and causation continue to be determined according to established standards of state tort law?

Causation should continue to be determined according to established standards of state tort law and is the main item of proof required under Price-Anderson in the event of an "extraordinary nuclear occurrence." When you consider the number of long-term injuries and illnesses for which modern science and medicine are still less than clear as to their cause or origin, any weakening of the causation nexus between a nuclear incident and alleged injuries or diseases would convert the Price-Anderson program from one of just compensation to one of automatic payment for mammoth health expenses with no rational or justifiable basis to assess such costs against the activities of nuclear licensees or contractors.

Establishing of damages should also be kept under normal tort law, except for flexibility that should be retained by the government for payment of damages where the aggregate damages from an incident do actually exceed the statutory limitation under Price-Anderson.

On a longer range basis, if the statutory limitation of liability is significantly increased, consideration might be given to other methods to establish damages payable to victims which would eliminate many of the transaction costs of the tort system and allow for a greater portion of the total dollars expended following an incident to go to actual victim compensation and a lesser portion to the costs of distribution of such payments.

3. How large are the potential consequences of a nuclear accident?

Estimating the maximum potential consequences of a nuclear accident is virtually synonymous with the proverbial question of how high is up. As in the case of all major industrial or commercial accidents, both the magnitude of the accident itself and the extent of injuries or damage resulting therefrom are subject to a multitude of circumstances, most of which are unpredictable and unforeseeable.

Predicting the maximum risk for any specific activity is restricted only by the imagination of the individual making the prediction. One would normally consider the potential damages that might flow from the keeping of a cow in a barn to be relatively nominal, but due to a series of coincidental circumstances the maximum potential damages in the case of one Mrs. O'Leary's cow in a Chicago barn would be deemed to be quite catastrophic indeed.

Many experts over the years have attempted to estimate the maximum potential consequences of a nuclear incident, and all such estimates suffer the same infirmity of being subject to a margin of error too serious to make the dollar estimates really credible or particularly useful.

4. Do you believe that potential consequences of a nuclear accident are such that providing full compensation to the victims would likely cause economic hardship or severe disruption to the sources of funding for the accident that are specified in:

- (a) S. 44?
- (b) S. 843?
- (c) Amendment No. 3238?

Insofar as activities of Department of Energy contractors are concerned, funds for providing victim compensation in all bills currently under discussion are provided by the Federal Government, with the exception of certain waste activities where funding is provided by the Nuclear Waste Fund financed in large measure by the utility industry.

While the payment of several billion dollars over a relatively short period of time must by definition be considered an economic hardship for almost any entity, including the Federal Government, the Government should be able to provide all funding required by any pending legislation and the Congress is the best judge of the Government's ability to do so. Our only comment in this area would be to repeat our concern with even the Federal Government accepting, either directly or indirectly, responsibility for "full" damages, without some flexibility to moderate the burden of excessive transaction costs inherent in the existing tort system.

STATEMENT OF
AMERICAN NUCLEAR INSURERS
MUTUAL ATOMIC ENERGY LIABILITY UNDERWRITERS
NATIONAL ASSOCIATION OF INDEPENDENT INSURERS
ALLIANCE OF AMERICAN INSURERS
AMERICAN INSURANCE ASSOCIATION

BEFORE THE

SUBCOMMITTEE ON NUCLEAR REGULATION

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

APRIL 30, 1987

I am Joseph Marrone, General Counsel and Senior Vice President of American Nuclear Insurers (ANI). With me is Marguerite Shea, Assistant Manager of Mutual Atomic Energy Liability Underwriters (MAELU). ANI and MAELU are the two nuclear insurance Pools that have provided insurance to the nuclear industry since 1957.

We appear today on behalf of the nuclear Pools. The National Association of Independent Insurers, the Alliance of American Insurers, and the American Insurance Association also join in our statement. The total membership of these organizations includes over 800 domestic insurance companies with virtually all of the major companies represented.

The nuclear Pools were formed in response to the desire of Congress and the utility industry that the insurance industry participate in providing a financial protection program for the nuclear risk. Insurers have done so for 30 years. They have had a fair measure of success despite insuring a novel exposure with potential catastrophe loss that since its inception has provided insurers very small spread of risk and small premium volume.(1) Despite this, and the major property and liability insurance loss suffered as a result of the Three Mile Island (TMI) accident in 1979, the capacity the Pools provide for nuclear property and nuclear liability insurance combined has gradually increased from $120 million in 1957 to $810 million dollars. (2) Slightly more than half of this capacity is from overseas insurers.

The Pools' success in securing and maintaining nuclear liability capacity is particularly noteworthy when compared to the difficulties regarding availability and cost of liability insurance in some relatively ordinary areas of tort liability. The Pools' ability to periodically increase their liability capacity has been somewhat strained in recent years. This is due partly to the increasing concern of foreign and domestic insurers regarding the difficulty of predicting results in the liability insurance area generally. In addition, financial reverses of American property and liability insurers over the last several years have caused a loss of about 100 of the 300 American insurers which were members of ANI and MAELU four or five years ago. We hope that as these American insurers recover their financial equilibrium they will be able to resume their membership in the Pools.

The Pools' ability to provide nuclear liability insurance capacity depends, however, less on their own efforts than it does on the success of Congress in renewing the Price-Anderson Law with its essential elements intact. These elements have been described in the Pools' statements before this and other

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(1) Premium income for 1986 was $55 million dollars for liability insurance for the entire nuclear industry and $140 million dollars for property insurance.

(2) $160 million nuclear energy liability insurance (primary layer)
$ 30 million contingent liability insurance (secondary layer)
$500 million property damage insurance (primary)
$120 million property damage insurance (excess)

Congressional Committees. (3)

The Price-Anderson Law was enacted and twice renewed to provide a prompt means of affording compensation to the public while limiting the liability of industry to some reasonable measure. The law generates very large sums from private parties that is certainly much greater than would be available to pay compensation absent the law. The limit on liability is extended to private interests as a balance to their assuming responsibility for paying very large sums for accidents experienced by others.

The determination of what amount is a "fair" liability for the ratepayers or stockholders of 99 reactors to assume for an accident at the 100th reactor is the essence of the law and of the present debate.

It is important to remember that a major reactor accident would create a time of severe economic stress for utilities generally, even though they play no part in causing the accident. Apart from equitable considerations, it seems imprudent to heap great liabilities on an essential industry in advance of an accident not knowing the financial condition of the industry at the time it is called upon to pay.

The interest of insurers is (1) to insure an industry that is financially sound (financial stability provides more assurance of safe operations, and greater likelihood that premium income would continue after insurers have paid losses caused by a major accident), and (2) as administrators of the financial protection program, to be certain that it will function as intended if it is ever called into operation, which would be a time of great stress.

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(3) See attached list of recent statements by Pools regarding Price-Anderson renewal.

The principle objective of Price-Anderson is not to identify who is at fault, or to punish, or to regulate to make nuclear power more safe. The objective is to provide large sums for financial relief to the public while limiting liability of private parties. The idea is to line up the funds and the obligations to pay for the consequences of a very remote event, and to distribute the cost in a reasonable manner.

How well has this objective been served?

The amount of financial protection to the public has substantially increased since 1957 due in large part to unique means of combining the resources of insurers and reactor licensees which could not be done without the Price-Anderson Law. The increase from $60 million of financial protection to about $700 million today ($160 million primary and $540 million secondary), to the approximately seven billion dollars contemplated by renewal legislation, is extraordinary.

Severe fluctuations in the availability and cost of insurance in conventional insurance markets have not taken place in the nuclear area. Tort law and related insurance market problems have been and continue to be very real in areas which do not pose nearly the challenge to insurers presented by the nuclear risk. Instead of being concerned about insurance not being available, or with costs for what is available being too high, House and Senate Committees dealing with Price-Anderson are engaged in determining how to reasonably increase what is already a very large amount of private protection. This happy circumstance is no accident, but is rather the consequence of the structure for financial protection that is integral to the Price-Anderson Law. The critical elements of the Price-Anderson structure include:

1. The economic consequences of liability is channeled to the financial protection provided by the licensee. (All interests are insured under the program, with no need for recourse against others.)

2. A limit on liability applies to all persons liable.

3. The assessment liability of licensees should be reasonable and should avoid imposing crippling liabilities if they are called upon to be paid.

4. The expense of investigating, evaluating, paying or defending claims is an inescapable cost that must be borne by licensees as a part of their retrospective premium, and be included in the limit on liability.

5. Legal defenses are waived in the event of an extraordinary nuclear occurrence, thus expediting payments to the public. Defenses are retained as respects other claims.

6. No unique or unusual liability is added to existing tort remedies (e.g., creating liability for stolen nuclear material criminally

used to cause harm).

7. Provision must be made for compensating claims beyond the amount of financial protection provided.

Of the three legislative proposals we have been asked to consider (S.44, S.843 and Printed Amendment No. 3238), we support only Amendment No. 3238 because it continues the essential elements of a sound program.

Amendment 3238 would dramatically increase the total assessment liability of each reactor licensee from $5 million dollars to $60 million dollars for each nuclear incident, with payments not to exceed $12 million dollars in one year. This would eventually produce a fund of about $7 billion dollars which would be the exclusive source of payments for public liability claims. The bill contains provisions for the NRC to advance funds should there be defaults in paying retrospective premiums when due not covered by insurance. Also, should claims payments and costs exceed the amount of retrospective premiums received annually, there is provision for the NRC to advance funds if claims and expense exceed the premium received in a given year. Section 170e. of the bill provides for a clearly stated limit on liability equal to the amount of financial protection. Provision is made for Congressional review of loss in excess of the limit and for the development of a compensation plan to be approved by the Congress.

Amendment 3238 continues the elements essential to a viable private insurance program:

1. Economic channeling of liability to the financial protection provided by the licensee. (All private interests continue to be insured under the program).

2. A limit on liability applies to all persons who may be liable.

3. The expense of administering the program, investigating and settling claims, continues to be included in the retrospective premium and the limit on liability.

4. Legal defenses are waived only for claims arising from an extraordinary nuclear occurrence.

5. Although the amount of liability is greatly increased, no unique or unusual liability is created.

6. Sound provision is made for compensating claims beyond the amount of financial protection.

Since Amendment 3238 continues the essential elements of the program intact, the central issues are (1) is the amount of the retrospective premium reasonable, and (2) does the bill provide assurance that after financial protection is exhausted, all valid claims will be compensated as the result of further Congressional action?

A $60 million assessment, even spread over 5 years, is a large sum to be assumed by individual companies in an industry whose members have greatly differing financial strengths. The total sum called for is extraordinary, which suggests that it is at the outer bounds of what is "reasonable" in partitioning compensation costs between utilities (their ratepayers), and other sources of funding.

Payments would be required at a time of exceptional stress. Protection against collapse of the compensation system is provided first by the Pools' program to make good the first $30 million of defaults in payments of retrospective premiums, and by NRC guarantees that they will be paid. The system, we believe, should function as intended with these and other safeguards contained in Amendment 3238.

Amendment 3238 contains explicit provisions for Congressional action for the payment of claims that exceed the amount of financial protection. The Price-Anderson Law is quite clear that the Federal Government is to act to compensate loss to the public that exceeds the amount of financial protection. Amendment 3238 reinforces this. The Congress and the executive branch of government will have every incentive to act swiftly and equitably.

For the foregoing reasons, and subject to reservations respecting the amount of the retrospective premium, insurers support Amendment 3238. We believe that insurers will continue to be able to provide capacity under its framework, and that the entire system will function as the Congress intends.

S-44

S-44 would plainly destroy the balance essential to the law by removing the limit on liability. It seeks also to modify the law to regulate safety by increasing or decreasing liability for retrospective premiums based upon performance. We don't believe that an obligation to pay smaller or greater retrospective premiums can be reasonably expected to affect safety. Would the reactor licensee obligated to pay less be less inclined to act safely? The obligation to pay larger retro premiums would occur only if an event occurs that is extremely remote and cannot reasonably be expected to have an effect on the safety of the operation of a reactor.

Licensees have much more immediate incentives for safety -- minor malfunctions can cause a reactor to be shut down for several days at a cost that can exceed $500,000 per day. Any more serious damage to equipment could cause substantial loss for down time. The property values at risk generally greatly exceed the amount of property insurance covering the reactor. In addition, NRC inspections and inspections by the utilities themselves serve to produce immediate and repeated impact to enhance safety. Although the objective sought is laudable, it is not likely to enhance safety.

S-843

S.843 would re-establish Government indemnity of persons liable. The bill does not provide a limit on the liability of persons who may be liable, nor is there a limit on the amount of the obligation of the Government to indemnify. Also, the costs of investigating, paying or defending claims are deleted from the obligation of licensees to pay retrospective premiums, and from the annual aggregate payments limitation.

The proposal violates the fundamental basis of the balance of equities that is a keystone of the Price-Anderson Law -- that there be a limit on liability of persons liable at some reasonable figure.

The Pools administer the claims to be serviced by the deferred premiums in the second layer of financial protection paid by licensees. The relative costs of administering the claims may not be large because of provisions in the law which expedite the legal process. There will, however, surely be such costs. These costs must be borne by licensees as an integral part of their obligation to pay retrospective premiums if the program is to continue to be sound.

Absent a statutory obligation, what assurance exists that these costs will be paid, and by whom? The Pools could not continue to be responsible for implementing the second layer of financial protection unless there is a statutory requirement that licensees will pay these costs as part of their obligation to pay retrospective premium. "Financial protection" is defined in the Atomic Energy Law (Section 11k.) to include both the cost of compensation to the public and of claims administration (investigation, defense, etc.)

As an integral part of the system, such costs need also be included in a limit on liability, or there effectively is no limit -- not on annual payments or overall. This fault with the proposal must deter any responsible organization from assuming the role that insurers would be compelled to relinquish.

By employing the route of "indemnity", the bill only indirectly makes the Federal Government responsible for compensation beyond the amount of financial protection. The manner in which indemnity is extended to licensees and other persons liable appears to say in effect that the obligation to pay is theirs without end, but the Government is to step in and assume their obligation if need be. This would be at a point where licensees will have paid $7 billion (perhaps increased for inflation), and the obligation beyond this sum is to be that of the Federal Government to be financed as it determines.

This indirect method of providing compensation may be misleading as to where the primary obligation lies for providing funds beyond the amount of financial protection, and is more likely to raise questions on implementation than would a simple straightforward obligation of the Government to provide the compensation. The Government's role in providing compensation should not be encumbered by being compelled to operate from the legal position of the persons the Government indemnifies. The Congress may also have reason to hesitate to create unlimited liability to indemnify by a future Congress though appropriation is needed to fulfill the obligation.

This indirect undertaking by the Government is more complex, and hence, less sure than a direct commitment in which the Government may be less confined in the manner of its response.

The bill removes the liability of licensees for claims costs without including other provision for these costs. Without a certain source of funding for claims costs, it would be impossible for insurers to continue as administrators of the second layer of financial protection. There is no provision for a limit on the liability of persons liable which is essential for private interests to be protected, and the bill reverts to the "indemnity" mode rejected by the Congress in 1975. Insurers do not support this bill.

CONCLUSION

It is now generally recognized that Price-Anderson renewal is in the public interest. The law is necessary if you are to have nuclear power. The experience with the law has been long and beneficial. We urge that the law's essential elements be renewed intact so that the program is sound and will function as intended, and insurers can continue to provide insurance. Amendment 3238 observes the essential elements of the law, and we urge its adoption.

We have attached to our statement a copy of our replies to the written questions submitted to us. We would be pleased to respond to any further questions.

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ANSWERS TO QUESTIONS FOR INSURANCE WITNESSES

1. Do you support providing full compensation to victims of a nuclear accident?

What is suggested by the underlined word is not clear. The standard for compensation should be realistic. In a world of scarce resources, there must be both a limit on individual expectations and an allocation of available funds on the basis of priorities.

Perhaps the clearest, most succinct statement of the balancing principle which underlies Price-Anderson is that made by the Chairman and Vice Chairman of the Joint Committee on Atomic Energy on June 6, 1965 (FOREWORD, SELECTED MATERIALS ON ATOMIC ENERGY INDEMNITY LEGISLATION, Joint Committee Print, June 1965):

> Deliberations through 1956 and 1957 convinced the Joint Committee that a program assuring two things was essential to carry out Congressional policy, expressed in the Atomic Energy Act of 1954, that private participation in the development of atomic energy be permitted and encouraged. It was necessary, the committee found, that a program be established whereby, first, the public would be adequately protected (emphasis added) in the event of the extremely unlikely but nonetheless potentially catastrophic possibility of a nuclear accident, and second, private firms entering the atomic energy business would have the means of protection against the uninsurable liabilities associated with this type of activity.

The phrases "full compensation" and "full and complete compensation" seem to have crept into the Price-Anderson debate rather recently. Presumably they refer to the tort law compensation standard, which includes very generous allowances for intangible, and often largely subjective, items beyond hard economic loss. The tort standard has proven to be both expansive and expensive. For some vital activities, such as providing medical care (malpractice litigation) and municipal services, it has led to such extremely high relative liability costs, that special legislation has been needed to curb its run-away tendencies. Apart from such subjective damages freely allowed in tort law, we would expect that under Price-Anderson economic loss would be compensated in the amount of loss actually sustained.

Price-Anderson recognizes, and we believe wisely, that whenever the limit of liability (the total amount of primary and secondary financial protection) is approached, steps must be taken to assign priorities and to apply reasonable limitations. Provision is made for developing a court approved distribution plan, with the court having "all power necessary to approve, disapprove, or modify plans proposed, or to adopt another plan; and to determine the proportionate share of funds available for each claimant." The goal is "to assure the most equitable allocation of available funds". (Sec. 170.o.).

However, Price-Anderson also recognizes that equitable apportionment may not be sufficient to assure that the public is "adequately protected."

SEC. 170e. contains the proviso "That in the event of a nuclear incident involving damages in excess of (the limit of liability), the Congress will thoroughly review the particular incident and will take whatever action is deemed necessary and appropriate to protect the public from the consequences of a disaster of such magnitude." Amendment 3238 makes the commitment of the Congress even more explicit.

We doubt that it is either necessary or appropriate to attempt to draw specific criteria for the appropriate level of compensation for those rare instances where either of the above provisions would come into play. For lesser accidents, we would not propose at this time to impose any special limitations on the ordinary tort standards for determining compensation, but would permit them to continue to apply as developed by applicable state tort law. Should a wide disparity occur, or should such standards become unreasonably liberal in some states, then consideration should be given to incorporating a specific standard in Price-Anderson itself.

2. Should damages and causation continue to be determined according to established standards of state tort law?

Our response to question 1 above includes discussion of tort damages, and briefly describes why the subjective elements of tort damages are not appropriate as a measure of compensation for a catastrophic accident. The tort rules regarding causation should be applied. They constitute a substantial body of law with a high degree of uniformity among the states.

3. How large are the potential consequences of a nuclear accident?

The insurance industry has made no estimate of the consequences of a catastrophic accident. By common agreement, the potential damages in terms of health effects, off-site property damage and other economic loss could have a monetary consequence of several billion dollars. The Pools anticipate paying the full limit of their coverage ($160 million) with respect to any "extraordinary nuclear occurrence." On the other hand, there are lesser accidents, such as the Three Mile Island accident, which are undoubtedly serious but may involve damages well within the primary financial protection.

4. Do you believe that the potential consequences of a nuclear accident are such that providing full compensation to the victims would likely cause economic hardship or severe disruption to the sources of funding for the accident that are specified in:

(a) S.44?

(b) S.843?

(c) Amendment No. 3238?

S.44 and S.843, which do not limit the liability of persons liable, are capable of adding to the disruption caused by a severe accident. Following such an accident, the electric utility industry which provides an essential service would be under severe strain. The effect of these bills would likely make the storm worse. Amendment 3238, by not implying that licensees must pay for all consequences of an accident, follows a more plausible route. After very substantial sums are paid by licensees to compensate the public, an evaluation is to be made by the President and the Congress of the best means of providing further compensation. The additional funds may be secured from a tax on the revenues of electric utilities or from general funds, or from a combination of sources. The selection of the source of funds for compensation beyond the amount of financial protection is reasonably determined at the time of need when a proper assessment can be made of the consequences of one mode of funding as compared to another.

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STATEMENTS AND APPEARANCES OF INSURERS BEFORE CONGRESSIONAL COMMITTEES ON PRICE-ANDERSON RENEWAL SINCE 1982

Date	(Name of Committee)
April 27, 1982	Subcommittee on Energy & the Environment
June 11, 1984	Subcommittee on Energy & The Environment
June 4, 1985	Subcommittee on Energy & Environment of the House Committee on Interior & Insular Affairs
June 25, 1985	Subcommittee on Energy & Development of the Senate Committee on Energy & Natural Resources
July 8, 1985	Subcommittee on Energy & the Environment of the House Committee on Interior & Insular Affairs
October 23, 1985	Subcommittee on Nuclear Regulation of the Committee on Environment & Public Works of the U.S. Senate
May 13, 1986	Subcommittee on Nuclear Regulation of the Committee on Environment & Public Works of the U.S. Senate
July 17, 1986	Subcommittee on Energy Conservation & Power of the Committee on Energy & Commerce of the U.S. House of Representatives
March 26, 1987	Subcommittee on Energy & the Environment of the Committee on Interior & Insular Affairs and the Subcommittee on Energy & Power of the Committee on Energy & Commerce of the U.S. House of Representatives

AMERICAN
NUCLEAR
INSURERS

BURT C. PROOM, CPCU
President and Chief Executive Officer

JOSEPH MARRONE
Senior Vice President
and General Counsel

June 9, 1987

Honorable Quentin N. Burdick
Chairman, Committee on Environment & Public Works
United States Senate
Washington, DC 20510-6175

Dear Senator Burdick:

The Pools' response to the questions asked in the enclosure to your letter of May 22, 1987 is attached.

Very truly yours,

J. Marrone
Joseph Marrone
Sr. Vice President
& General Counsel

JM/jr
Enclosure

The Exchange Suite 245 / 270 Farmington Avenue / Farmington, Connecticut 06032 / (203)677-7305 ■ Eng. Dept. (203) 677-7715 / TLX No. 643-129

SUBCOMMITTEE ON NUCLEAR REGULATION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
HEARING ON THE REAUTHORIZATION OF THE PRICE-ANDERSON ACT

QUESTIONS FOR THE NUCLEAR INSURANCE POOLS AND THE POOLS' RESPONSE

June 9, 1987

Question 1. What type and how much insurance is available for suppliers, vendors, and contractors for on-site property damage in the event of a nuclear incident?

Reply:

No insurance coverage is available to protect the liability of suppliers (including vendors) and contractors for damage to a nuclear facility caused by the nuclear energy hazard. The nuclear insurance Pools have introduced unique provisions in their property insurance policies to alleviate the effects of this. When there is covered loss to property insured under a property policy the insurer pays the loss and is then normally entitled to all of the insured's rights against persons that are liable for the damage. To reduce the concern because of the absence of insurance for suppliers and transporters the property insurance policies that insure nuclear facilities contain two unique provisions:

First: Insurers waive their right to subrogation against suppliers and contractors for loss to insured property that is caused by the nuclear energy hazard.

Second: The insured is authorized, prior to a loss, to waive in writing any rights of recovery it may have against suppliers and contractors.

We understand that it is common practice in the nuclear industry for power reactor owners to waive, in advance of loss, their rights of recovery against suppliers and contractors for on-site property damage caused by the nuclear energy hazard.

Question 2. Are there any exclusions to the coverage for on-site property damage provided by the nuclear insurance pools based on the conduct of the persons indemnified? Is coverage available for on-site property damage for persons engaged in acts of intentional misconduct? Are the pools willing to provide insurance for intentional misconduct for liabilities other than public liability?

Reply:

The Pools' property insurance policy issued to owners of nuclear facilities to protect them from loss due to physical damage to on-site property contains the following exclusion on page 3:

> The following Causes of Loss are not covered ...

* * * *

(2) Any fraudulent, dishonest or criminal act done by or at the instigation of any

(a) Insured,

(b) partner, or joint venturer in or of any Insured, or

(c) officer, director or trustee of any Insured;

The property insurance policy does not cover loss to insured property that is caused by the criminal acts of an insured.

The last sentence of question 2 is concerned not with property insurance, but shifts to liability insurance. As a matter of public policy, courts generally conclude that an insured cannot be protected by liability insurance from the legal consequences arising out of the insured's criminal acts. The reasons for this are obvious. Many liability policies express this in an exclusion similar to the following:

> The insurance does not apply to:
>
> * * *
>
> bodily injury or property damage expected or intended from the standpoint of the insured.

The Pools' Facility Form issued to operators of nuclear facilities does not cover liability for intentional harm caused by criminal acts.

The Pools' members and reinsurers are not willing to provide insurance for the liability of criminals for their criminal acts. The idea of compensating the public for the consequences of criminal acts is laudable, and in some states I understand that tentative measures have beens taken to relieve victims of muggings and other violent crimes. But, the function of protecting against criminal acts is a responsibility of the state. If the state provides compensation for criminal acts, it is not at all related to tort liability or tort damages. The Price-Anderson Law responds to tort liability with tort damages, and is far removed from what the government might deem to be a reasonable program for providing compensation for persons injured by the acts of criminals.

Question 3. Can nuclear utilities obtain private insurance for liabilities resulting from civil penalties imposed by the Nuclear Regulatory Commission?

Reply

No insurance is available for civil penalties from the Pools. To the best of my knowledge, insurance for civil penalties is not available from any source, and were it available it would likely be considered as being contrary to public policy.

Question 4. Couch on Insurance states that "It is generally held to be contrary to public policy to insure against liability arising directly against the insured from his willful wrong. Any insurance which purports to protect the insured against any loss which he may purposely and wilfull cause, or which may arise from his immoral, fraudulent, or felonious conduct, is void as against public policy." Couch on Insurance, Vol. 9, 2d ed., Sec. 39:15, pp. 506-507 (1985). Is this a correct statement of current law regarding insurance for intentional misconduct? Is coverage for intentional misconduct ever available in insurance policies for non-nuclear activities?

Reply

It is a correct statement of the law. Coverage for intentional misconduct is not available in liability insurance policies that are issued to cover non-nuclear activities.

Question 5. (a) Under current law, are liabilities incurred during the transportation of nuclear waste from a nuclear power plant covered by the financial protection provided under section 170b. of the Atomic Energy Act for incidents arising at the facility itself? Is the insurance provided by the pools applicable to such liabilities?

Reply

(a) The Pools' Facility Form, which is accepted by the NRC from licensees as evidence of financial protection, insures liability arising out of nuclear material at the location designated in the policy, and specified shipments to and from that location. When nuclear "waste" is at the location, for example while being gathered, stored, treated, packaged, etc., liability arising from the waste is covered. The coverage follows the waste as it is shipped to another location. The coverage ends when the waste arrives at that other place. So, liability arising out of the waste is covered continuously until the shipment of the waste arrives at another location.

Question 5. (b) All the bills presently before the Committee would provide that DOE indemnification would be the exclusive means of indemnification under the Price-Anderson Act for activities of DOE contractors. Would the insurance pools be willing to provide insurance coverage for the transportation activities of DOE contractors that are presently covered under NRC indemnification agreements but that would be covered by DOE indemnification agreements under the bills before the Committee?

Reply

A question very similar to this was recently asked of insurers by Senator Bennett Johnston. His letter of inquiry dated March 30, 1987 and the Pools' reply dated April 3, 1987 from Richard Schmalz, Counsel to the Nuclear Pools, is attached and serves as our response..

Question 6. The General Accounting Office recommended in 1981 that the amount of protection provided for incidents arising from activities of DOE contractors be raised, and that one way of doing this would be to require DOE contractors to purchase private insurance, although under current DOE procurement practices the cost of this insurance would be paid for by DOE. (It is a common practice for the government to require contractors to purchase insurance, even though the cost of insurance may ultimately be paid for by the government).

(a) Assuming DOE sought to require its contractors to purchase private insurance, would the nuclear pools be willing to provide insurance for DOE nuclear activities, such as the operation of production reactors or enrichment facilities, comparable to the activities of NRC licensees? Please explain any factors that would persuade you to treat such activities in a different manner. Do you perceive the risks to be the same or different?

Reply

(a) The letter from Mr. Schmalz attached in response to question 5.(b) serves in response to this question as well. The government has elected over many years to not require its contractors to purchase nuclear liability insurance. Were a program for contractors to be developed, all of the costs, including a profit for insurers, would be borne by the government. Insurance practices used in conventional areas of insurance could not apply. The classified nature of many operations would impede the ability of insurers to rate and inspect risks, and to service claims. There does not appear to be any change in circumstances that suggest there is reason for the government to change its position to not require its contractors to purchase nuclear liability insurance. Since we are not familiar with contractor risks, we cannot know how they may differ from the risks posed by licensees.

Question 6. (b) Would the nuclear insurance pools be willing to provide for high-level waste activities undertaken by DOE contractors coverage that is at least comparable to that of NRC licensed reactors? Please explain any factors that would persuade you to treat such activities in a different manner. Do you perceive the risks to be the same or different?

Reply

The Pools would consider providing nuclear liability insurance for the high level waste site operated by DOE contractors. The Pools' underwriters and engineers would need to first carefully evaluate the risks associated with the particular location and activity to be insured. It seems probable that the technical information required to assess the risk and develop rates would not be classified and so should be available to the Pools' underwriters and engineers. We could not evaluate the risk which may differ from risks we presently insure without a careful evaluation of the activity and the location.

The Pools do not now insure any high level waste site, though we do provide nuclear liability insurance for several low level waste burial facilities. We have some serious concerns regarding our ability to continue to insure these facilities because of claims recently made by some insureds that the liability coverage which is intended to protect against bodily injury or property damage claims of the public, should pay for the expense of work done on-site to "clean it up" or to prevent radioactive material from getting off-site. Such claims are a gross distortion of what is generally understood by insurers and insureds. One effect is to "chill" the insurance markets, and insurers, both overseas and in the United States, may be less willing to provide coverage for waste facilities in the future.

The Pools, nevertheless, would carefully consider a request for nuclear liability insurance for a contractor operating a high level waste burial facility.

J. Marrone
June 9, 1987

April 3, 1987

United States Senate
Committee on Energy and Natural Resources
Washington, DC 20510
J. Bennett Johnston, Chairman

Re: Private Insurance for Gross Negligence or Willful Misconduct of
Government Contractors under Price-Anderson

Dear Senator Johnston:

Mr. Marrone of American Nuclear Insurers asked me, as Counsel to both nuclear pools (ANI and MAERP), to respond to your letter of March 27, 1987 on their behalf.

As you know, the nuclear pools have not provided nuclear energy liability insurance for government contractors in connection with the Price-Anderson program. Your question deals with the availability and cost of such insurance today. A bit of history will be helpful.

When the program started in 1957, the possibility of making such insurance available was thoroughly explored by the nuclear pools and the government. The consensus was that a truly private insurance program for contractor activities was not feasible. It was apparent that there was a wide range in the scope of contractor activities and great variation in the hazard. Many activities were classified.

From the government's point of view, the cost of insurance would become reimbursable. The government's position has historically been that it is less expensive in the long run to bear the risk than to insure it. Further, the government clearly preferred to control the defense of claims in which it had a paramount interest. For the nuclear pools, the variation in hazard and the classified nature of many contractual operations meant that normal underwriting, rating and claims practices could not be used. Since no credible risk premium could be established, any insurance program would have to be almost wholly "cost plus".

These circumstances are still relevant today. Thus, a private nuclear insurance market for government contractor activities is not likely to arise. And the possibility of developing a market restricted to covering gross negligence or willful misconduct is very remote indeed.

Sincerely,

Richard A. Schmalz

Richard A. Schmalz
Counsel to the Nuclear Pools

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United States Senate
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
WASHINGTON, DC 20510

March 30, 1987

Joseph Marrone
Vice President and General Counsel
American Nuclear Insurers
The Exchange Suite 245
270 Farmington Avenue
Farmington, CT 06032

Mike PA

Dear Mr. Marrone:

As you are aware, the Senate Committee on Energy and Natural Resources held a hearing on March 18 on reauthorization and extension of the Price-Anderson Act. During that hearing, it was suggested that contractors should not be indemnified by the federal government for nuclear accidents resulting from gross negligence or willful misconduct. Furthermore, it was suggested that such contractors should be required to maintain private insurance to protect themselves against claims from accidents resulting from gross negligence.

It would be helpful if you could clarify for the Committee the insurers' position on this matter. Would contractors be able to obtain private insurance to protect themselves in cases of accidents involving gross negligence or willful misconduct? If so, at what cost?

As we are scheduled to mark up legislation to extend the Price-Anderson Act on April 8, your immediate response would be appreciated.

Sincerely,

J. Bennett Johnston
Chairman

STATE OF IDAHO
OFFICE OF THE ATTORNEY GENERAL
BOISE 83720

JIM JONES
ATTORNEY GENERAL

TELEPHONE
(208) 334-2400

April 28, 1987

The Honorable John Breaux
Chairman
Subcommittee on Nuclear Regulation
Environment and Public Works Committee
Senate Office Building
Room SD410
Washington, D.C. 20510

Dear Chairman Breaux:

The National Association of Attorneys General is vitally interested in the liability aspects of the federal government's nuclear waste program. Since liability issues are being discussed in conjunction with legislation to reauthorize and extend the Price-Anderson Act, I would like to call to your attention to a resolution which was unanimously adopted by the Association on July 18, 1985. As chairman of the NAAG Energy Committee, I am furnishing the enclosed resolution which, among other things, outlines our views on the question of the federal government's liability and that of DOE contractors with respect to the high level waste program. I would appreciate it if you would include the resolution and a copy of this letter in your hearing record on Price-Anderson legislation.

The principal issue addressed in the resolution is legal in nature--attributing the liability for the federal government's nuclear waste program in advance of the program's activities and before any injuries occur. As you know, Section 123 of the Nuclear Waste Policy Act provides that title to high-level nuclear waste will transfer to the federal government, specifically to the Secretary of Energy. The Department of Energy will have complete control of the waste. Standard principles of common tort law would make DOE liable for its own acts and, by theory of respondeat superior, for the acts of its contractors. Yet, recovery against DOE under present law would be frustrated by the Federal Tort Claims Act and the sovereign immunity of the federal government. Even if it was clear under the present act that

Price-Anderson addresses the nuclear waste program, an injured person could not seek recovery for DOE-caused injury because Price-Anderson only allows action against DOE contractors or NRC licensees, not DOE itself.

The nuclear waste program is one which DOE will operate in a purely proprietary capacity. Since no governmental function will be involved, there is absolutely no reason why the federal government should not be as liable as any other party which holds title to, or has complete control of, ultrahazardous materials such as high-level nuclear waste.

Section 170(d) of the Price-Anderson Act currently limits the potential recovery against DOE contractors to $500,000,000 through a system in which the federal government agrees to indemnify all DOE contractors to that extent. This indemnification process developed because of the similar indemnification concept utilized under section 170(c) of the Act, the purpose of which was to provide incentive to the nuclear utility industry (NRC licensees) to develope that industry. The indemnification process is not, however, the best system to deal with injuries arising from the nuclear waste program or any other program which is as saturated with such a great degree of federal involvement. Title to the nuclear material is federal. Operation of the program is federal. None of the federal activity is governmental in nature. There is no policy reason to continue to utilize an injury compensation system which was designed for an entirely different purpose when a more direct and equitable system is available. That direct system is, of course, the statutory declaration of the federal government's liability for any and all injuries arising from its nuclear waste program.

One major defect in the indemnification process, currently utilized under section 170(d) of the Price-Anderson Act, is that it brings into play the substantive tort law of each of the state jurisdictions in which a claim may be made. Though each state may legislatively or judicially determine that radioactive materials are ultrahazardous materials and that, therefore, strict liability applies under the law of that state, the liability of the federal government cannot be declared by state legislatures or courts. It is incumbent upon the Congress to make that statement.

It is my opinion that the establishment of statutory liability for injuries arising from the nuclear waste program would have no bearing on the process established for the assertion of claims for the tortious conduct of the federal government under the Federal Tort Claims Act. Congress should, in addition to establishing federal liability, create a claim compensation process which may be elected in lieu of the Federal Tort Claims Act, leaving the election of remedies to the claimant.

My organization believes that Congress should statutorily establish the principle of strict liability of the United States for the nuclear waste program. States and municipalities should be held harmless from liability in connection with this program. States should be able to make claims for losses to public health, the environment, or their economic well-being due to the failure of nuclear waste facilities to isolate radionuclides. All actual damages should be compensated, without limit, directly by the federal government for all injuries arising from the nuclear waste program. Public confidence in the nuclear waste program would be greatly enhanced by the implementation of this type of program.

Your consideration of our concerns on this legislation will be greatly appreciated.

With best wishes, I am,

Sincerely,

JIM JONES
ATTORNEY GENERAL

JTJ/tg

Adopted by: Energy Committee

RESOLUTION

IX

AMENDMENT OF THE PRICE-ANDERSON ACT

WHEREAS, the Congress of the United States enacted the Nuclear Waste Policy Act, Public Law 97-425, and determined therein that "the Federal Government has the responsibility to provide for the permanent disposal of high-level radioactive waste and such spent nuclear fuel as may be disposed of in order to protect the public health and safety and the environment"; and

WHEREAS, the United States Department of Energy, pursuant to the Nuclear Waste Policy Act, has identified sites within several states at which high-level nuclear waste repositories may be developed; and

WHEREAS, the United States Department of Energy, pursuant to the Nuclear Waste Policy Act, will identify several locations in several states at which a second high-level nuclear waste repository may be developed; and

WHEREAS, the United States Department of Energy, pursuant to the Nuclear Waste Policy Act, will receive title to high-level nuclear waste and spent fuel at the reactor and will transport such waste and spent fuel, primarily by contractor, through many states; and

WHEREAS, the acts of the Department of Energy, its employees or contractors may result in accidents causing injury to or loss of property, personal injury or death, or damage to the public health, environment, or economic well being; and substantial expenditure of state and local funds for emergency response, clean-up, etc; and

WHEREAS, it is not possible at this time to actuarially determine the extent of loss which may occur from such potential accidents; and

WHEREAS, the Congress is now considering amendments to the Price-Anderson Act, an act dealing with the liability of various parties in connection with the operation of nuclear facilities;

NOW, THEREFORE, BE IT RESOLVED, that the National Association of Attorneys General urges the Congress to enact legislation defining the liability of the United States Department of Energy in connection with the high-level radioactive waste, spent nuclear fuel, and transuranic waste program authorized by the Nuclear Waste Policy Act during its consideration of amendments to the Price-Anderson Act; and

BE IT FURTHER RESOLVED, that the following principles be incorporated in such legislation:

1. Acts of DOE contractors in the high-level radioactive waste, spent nuclear fuel, and transuranic waste program which result in accidents causing injury to

or loss of property or personal injury or death, create strict liability in the United States as a matter of law.

2. Acts of DOE in the high-level radioactive waste, spent nuclear fuel, and transuranic waste program which result in accidents causing injury to or loss of property or personal injury or death create strict liability in the United States as a matter of law.

3. Acts of other governmental entities, e.g. states, affected Indian tribes, counties, and municipalities, which result in injury to or loss of property, or personal injury or death create strict liability in the United States as a matter of law, with the State or municipality held harmless.

4. Acts of DOE and/or its contractors in the radioactive waste, spend nuclear fuel, and transuranic waste program which result in loss to the public health, environment or economic well-being due to the failure of any activity or facility authorized by Public Law 97-425 or Public Law 96-164, Sec. 213 (Waste Isolation Pilot Program authority) to isolate radionuclides contained in high-level radioactive waste, spend nuclear fuel, and transuranic waste from the general environment create strict liability in the United States as a matter of law. Claims for such loss may be made by the state in which loss occurs on behalf or the citizens and environment therein.

5. All actual damages should be compensated, with no limit on the liability of the United States.

BE IT FURTHER RESOLVED, that the National Association of Attorneys General authorizes its Executive Director and General Counsel to transmit copies of this resolution to the Congress, the Administration, and other interested parties.

Statement of Dr. Richard E. Keesee on the Price-Anderson Amendments Act of 1987

Submitted on behalf of the National Association
of Nuclear Pharmacies to the Subcommitee of
Nuclear Regulation of the Committee on
Environment and Public Works, U.S. Senate.

April 30, 1987

On behalf of the National Association of Nuclear Pharmacies ("NANP"), I am pleased to submit the following comments on the reauthorization of the Price-Anderson Act. NANP's concerns are specifically relate to byproduct material licensees, such as nuclear pharmacies, who utilize this material for medical, diagnostic, and treatment purposes. The NANP is an non-profit organization whose goal is to promote the practice of nuclear pharmacy. Its members include independent nuclear pharmacies as well as university and hospital nuclear pharmacies across the country.

I. The Affected Medical Services

A nuclear pharmacy is a facility licensed by the U.S. Nuclear Regulatory Commission ("NRC") and/or agreement state where radiopharmaceuticals are prepared, stored, and dispensed by specially trained pharmacists.[1] Radiopharmaceuticals are radioactive compounds used for the diagnosis and therapeutic treatment of human diseases. These drug products have become increasingly important to health care since they first became available for commercial use in 1954. Last year, over 7 million patients were diagnosed or treated with radiopharmaceuticals. Because these drug products are injected or ingested into the human body, they contain relatively small amounts of radioactive materials which decay naturally over a period of hours.

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[1] An agreement state is any state with which the NRC has entered into an agreement under Section 274(b) of the Atomic Energy Act, as amended, 42 U.S.C. § 2021(b). The agreement gives the state limited authority to license and inspect certain nuclear facilities and requires the state to assert its best efforts to assure that its regulatory program for protection against radiation hazards will be consistent with NRC's program. 10 C.F.R. § 8.4(j).

Nearly ninety-five percent of all radiopharmaceuticals are used for diagnostic purposes. Radiopharmacology has played a significant role in diagnostic medicine by providing more information about human disease. This has been done primarily through imaging techniques. In addition to alerting physicians to abnormal growths and tumors in the bone, spinal cord, thyroid, lungs, liver, and other organs, radiopharmaceutical technology can aid in diagnosing a wide range of diseases such as emphysema, hepatitis, and arthritis. Imaging agents used on the brain and the cardiovascular system are the two most frequently administered diagnostic agents.

Moreover, while the vast majority of radiopharmaceuticals are used in diagnosis, it is anticipated that radiopharmaceutical technology will become more common, particularly in the treatment of cancer. Currently, a substantial percent of patients with thyroid cancers benefit from radioiodine therapy. Also, advanced research using radionuclide therapy attached to monoclonal and polyclonal antibodies now show promise in reducing the growing cancer cells to acceptable levels.

II. Current Price-Anderson Act Coverage

It is important to note at the outset that the current Price-Anderson Act does not specifically cover byproduct material licensees, such as nuclear pharmacies, who utilize such materials in medical diagnosis and treatment. Under present law, the NRC has the discretionary authority to include such licensees under the Act. See 42 U.S.C. § 2210(a). The NRC has not exercised its authority because it believed that the possibility that a serious incident resulting in substantial liability would occur with the low-level radioactive materials utilized by these licensees was remote. This conclusion was based on estimates of liability prepared in 1980 by the Oak Ridge National Laboratory and by NRC. At that time, the NRC concluded that these licensees could secure adequate insurance through private concerns to cover the potential liability they might incur. As will be discussed below, insurance coverage for third-party claims is now nonexistant.

The decision of the NRC has not been changed despite the fact that byproduct material licensees involved in nuclear medicine now face substantial liability. Recent court decisions and the unavailability of insurance coverage have made the issue of whether the Price-Anderson Act should be amended to cover the liability of nuclear pharmacies one of paramount concern to the members of NANP and other users of radiopharmaceuticals. Without Congressional action, the future use and availability of these life-saving tools is jeopardized.

Accordingly, the NANP has proposed an amendment to the Price-Anderson Act, a copy of which is attached. This amendment is necessitated by the current unavailability of insurance and the explosive growth of damage awards in products liability and toxic tort cases in the general business community.[2]

III. The Insurance Crisis

At the present time, no third-party claims have been brought against any nuclear pharmacies in the NANP membership. Yet despite this excellent claims record which reflects the safe nature and low risk involved, insurance policies now exclude coverage for environmental and nuclear claims. This can only be attributed to the claims experience in the general business community.

Nuclear pharmacies are unable to purchase coverage for nuclear explosions or damages resulting from low-level radioactive emissions in the regular commercial market.

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[2] The February 1986 Report of the Tort Policy Working Group on the Causes, Extent and Policy Implications of the Current Crisis of Insurance Availability and Affordability ("Report") cogently sets forth these disturbing trends. This Report was issued by the U.S. Department of Justice, the U.S. Department of Commerce, and the Small Business Administration.

Comprehensive general liability insurance policies now uniformly exclude damages resulting from pollution hazards and nuclear materials. The nuclear risk exclusion denies coverage for bodily injury or property damage resulting from discharge of nuclear materials from waste or nuclear materials and denies coverage for any injury to persons occurring during the operation of a nuclear facility. The pollution exclusion has recently been expanded by the insurance industry so that neither long-term exposure nor accidental releases are covered.[1] Following a model developed by the Insurance Services Office, all carriers now include this new "absolute" pollution exclusion in their liability policies. In the face of substantial awards in environmental liability and toxic tort cases, the insurance industry has been unwilling to write any coverage for our members.

Specialized insurance coverage is not available in the current insurance market. See also Tort Policy Working Group,

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[1] While there have been a few decisions to the contrary, the majority of courts have held that the earlier version of the pollution exclusion denied coverage for gradual long-term pollution. Great Lakes Container Corp. v. National Union Fire Ins. Co., 727 F.2d 30 (1st Cir. 1984) (no coverage); Rad Services, Inc. v. Aetna Casualty & Surety Co., No. 86-3044, slip op. (3rd Cir. Dec. 30, 1986) (no coverage); Mraz v. Canadian Universal Ins. Co., No. 85-2399, slip op. (4th Cir. Nov. 4, 1986) (no coverage); contra Continental Ins. Co. v. Northeastern Pharmaceutical & Chemical Co., No. 85-1940, slip op. (8th Cir. Dec. 16, 1986) (coverage). Moreover, the new version of the exclusion contains a much stronger denial of coverage for accidental pollution.

An Update on the Liability Crises ("Update"), p.9 (1987). Because the industry does not have sufficient profits to set aside against third-party claims that may be asserted, the concept of self-insurance for nuclear pharmacies is not feasible. For example, one company operating several pharmacies nationwide made profits last year of only about $17,000 per pharmacy.

Thus, this industry is faced with double jeopardy: no insurance coverage and exposure to excessive jury verdicts. Therefore,the nuclear pharmacies have no choice but to "go bare" i.e., to operate without insurance coverage for potentially ruinous liability that could result from legal emissions of radioactive material.

IV. Proposed Amendment

The Nuclear Pharmacy Amendment proposed by the NANP to the Price-Anderson Act would establish a $500,000 limitation of liability for owners and operators of nuclear pharmacies or hospital nuclear medicine departments. This proposal only pertains to third-party claims arising out of nuclear incidents, nuclear explosions, and low-level emissions of by-product material from a nuclear pharmacy.

It should be noted that the vast majority of claims following a nuclear explosion would be covered by workers' compensation. Moreover, this amendment does not seek a limitation of liability in products liability or medical malpractice situations. In particular, the amendment does not address claims by patients arising out of the sale of defective products dispensed from nuclear pharmacies and hospital nuclear medicine departments. If these products are defective, the patient may assert his or her rights under the applicable state tort law system.

The other portion of the proposed amendment would exclude third-party liability claims for damages allegedly resulting from emissions of radioactive material below levels permitted by federal regulation. The proposed amendment seeks to overturn such ill-conceived state court decisions as Maryland Heights Leasing, Inc. v. Mallinckrodt, Inc., 706 S.W.2d 218 (Mo. Ct. App. 1985); Bennett v. Mallinckrodt, Inc., 698 S.W.2d (Mo. Ct. App. 1985); and Van Dissel v. Jersey Central Power and Light Co., 476 A.2d 310 (N.J. 1984).

V. The Mallinckrodt Case and its Progeny

On June 10, 1986, the United States Supreme Court refused to accept certiorari and review the lower court's decision in Mallinckrodt, Inc. v. Bennett, 698 S.W.2d 854 (Mo. Ct. App. 1985). See, 57 U.S.L.W. 3806. Justice White, Justice Marshall and Justice O'Connor would have granted certiorari. The Mallinckrodt case is a class action suit brought by a group of persons who have worked or will work near the defendant's radiopharmaceutical processing plant. The plaintiffs have alleged injury to their physical and mental health from exposure to low-level radioactive emissions. Mallinckrodt moved to dismiss the case against it on the grounds that the low-level emissions released by its facility were at levels permitted under the NRC's regulations. The Missouri Court of Appeals in reversing the trial court's decision held that Mallinckrodt could be subject to tort liability for low-level emissions even though it fully complied with federal regulations governing the release of radioactivity.

The impact of this decision on byproduct material licensees for medical use, such as nuclear pharmacies, is significant. Nuclear pharmacies, unlike the radiopharmaceutical processing plant operated by Mallinckrodt, do not utilize source material or operate reactors. However, these licensees, like Mallinckrodt, compound material emitting radioactivity at levels permitted by NRC regulations. Accordingly, the Mallinckrodt decision means that nuclear pharmacies and other byproduct material licensees for medical use face substantial liability for the release of low-level radiation emissions which comply with NRC regulations. Only facilities that do not emit any radioactive material will be insulated from the type of suit filed against Mallinckrodt which seeks damages of $1 billion.

The Mallinckrodt case is not an isolated or unusual case. The New Jersey Supreme Court also held that the defendant in Van Dissel v. New Jersey Central Power and Light Co., 476 A.2d 310 (N.J. 1984), was subject to tort liability regardless of compliance with NRC regulations. In addition, it is reasonable to assume, given the Supreme Court's recent action, that other state courts will impose tort liability on licensees who emit radioactive materials in compliance with NRC regulations. Further, these types of cases will continue to be brought with increasing frequency.

We believe that the principled approach to this issue is reflected in the Third Circuit's decision in Cipollone v. Liggett Group, Inc., 789 F.2d 181 (3d Cir. 1986). In that case, the Third Circuit held that the Federal Cigarette Labeling and Advertising Act preempted state law damage actions that challenge either the adequacy of the warning on cigarette packages or the propriety of a party's actions with respect to the advertising and promotion of cigarettes. It is submitted that our position is consistent with the Tort Policy Working Group's call for liability based on fault with proven causation. Report, pp. 30-35.

VI. Prior Regulation By NRC

Under Section 170(A) of the Atomic Energy Act of 1954, financial protection and governmental immunity are mandatory for the construction and operation of production and utilization facilities. This statute also allows the NRC the discretion to require financial protection and grant indemnity coverage to other regulated licensed activities not involving production or utilization facilities. In 1976, the NRC considered whether to exercise its discretionary authority and require financial protection for material licensees, particularly plutonium licensees. After studying the issue, the NRC decided to exercise its discretionary authority by requiring financial protection of and extending indemnity to certain plutonium licensees.

In 1980, the NRC staff, based upon work by the Oak Ridge National Laboratory and an in-house staff study, opined that no apparent need existed to extend this protection to other classes of material licensees. The NRC staff's conclusion was based, inter alia, on the fact that the amount of radioactive material handled by these licensees would not result in third-party liability claims greater than the amount of nuclear liability insurance then available. This 1980 study did not examine nuclear pharmacies. In his March 27, 1987 statement before the House Committee on Interior and Insular Affairs, NRC Chairman Lando W. Zech, Jr. stated that based on the 1980 study, Price-Anderson protection should not be extended to nuclear pharmacies because of the relatively small amount of radioactive material handled and the availability of nuclear liability insurance.

We respectfully submit that this seven year old study, possibly once correct, does not comport with present reality. As noted in the March 1987 Update, the Reagan Administration acknowledges that liability insurance for nuclear risks or environmental claims is now unobtainable. Furthermore, the 1980 study incorrectly assumed that $140 million in insurance coverage was available to these licensees through insurance pools when, in fact, nuclear pharmacies do not have access to these sources of insurance.

This proposed legislation is necessary since the NRC has discouraged a petition for rulemaking requesting NRC to exercise its discretion and extend coverage. According to the 1980 Report of John G. Davis, Director of the Office of Nuclear Safety and Safeguards, the NRC only has authority to indemnify its own licensees. Where the licensee is an agreement state licensee, the Report opined that new legislation would be needed in order to require that such a licensee be indemnified. More recently, Jerome Saltzman, Assistant Director of the NRC Office of State Programs, informed us that legislation proposing coverage for by-product material licensees would have to take the NRC's concern about agreement state licensees into account. Accordingly, the legislation we propose would permit the NRC to enter into indemnity agreements between NRC and agreement state licensees.

VII. Policy Considerations

Each nuclear pharmacy is required to maintain a license from the NRC or an agreement state and comply with the comprehensive array of federal health and safety regulations, including those covering the release and concentration of radionuclides both inside and outside a licensed facility. See 10 C.F.R. §§ 20.101-106 and Appendix B (1985). See also 10 C.F.R. Parts 20 and 35. The regulations devised by NRC cover every conceivable aspect of a licensee's operations, including the permissible levels of exposure and emissions, use of radioactive materials, and the disposal of radioactive waste.

This proposed amendment upholds Congress' carefully constructed federal regulatory scheme by denying state court claims that seek through ad hoc jury verdicts, additional and more stringent safety standards. The rejection of this proposed amendment would, in effect, allow juries who are unfamiliar with nuclear technology to determine radiation emissions standards on an a priori basis, an approach which may be highly emotional. These standards may well conflict with standards set by the NRC, the federal agency with the long-standing scientific expertise to establish standards in this technically complex field. Because standards created by juries on a case-by-case basis cannot be predicted by nuclear pharmacies, this industry will be faced with the prospect of having to pay potentially large damage awards as a cost of doing business. The protection afforded by the proposed amendment will be consistent with Congress' intent in preempting the field of nuclear safety and uphold the regulatory system set in place by Congress.

In addition to precluding claims where the nuclear pharmacy has complied with applicable radiation emission standards, the proposed amendment provides a limit on liability of $500,000 and governmental indemnity for judgments in excess of that amount. We are aware that the Administration, as set forth in the February 1986 Report, has several general reservations about governmental insurance. We will address those concerns seriatim.

First, the Report expresses concern of "the potential cost of such a program to the American taxpayer." Report, p. 76. The NRC "believes that in the event of an accident the quantities and types of radioactive material utilized by radiopharmacies would not result in significant off-site public liability consequences for which adequate insurance could not be purchased." See Letter from Thomas M. Roberts, Acting Chairman, NRC, to The Honorable Edward J. Markey, Chairman, Subcommittee on Energy Conservation and Power, Committee on Energy and Commerce, United States House of Representatives (Sept. 12, 1986) (copy attached). If this proposed amendment is enacted, it is the present intention of nuclear pharmacies to seek insurance with limits of $500,000. Since the members of the NANP have no history of third-party claims, it is our position that the proposed amendment does not expose the United States to any real danger from damage awards.

Second, the Report at page 76 mentions that a program of government insurance "would most likely jeopardize among the most effective and important mechanisms currently existing in the private sector to protect public health and safety. The insurance industry plays a vital role in promoting public health and safety by policing insurers to insure that risks of injury are minimized." As stated above, the nuclear pharmacy industry is presently subject to a wide array of health and safety standards promulgated by the NRC that would be more rigorous than any oversight by an insurance company risk management service. In order to enforce compliance with these comprehensive regulations, Congress authorized the NRC to impose stiff civil penalties, to revoke licenses, and to seek injunctive relief for regulatory violations. Furthermore, Congress authorized criminal sanctions for willful violations of the statutory scheme or the regulations promulgated thereunder. See generally 42 U.S.C §§ 2771-2284. Moreover, if third-party claims are precluded where the nuclear pharmacy has complied with the regulatory scheme, this will be an additional inducement to rigorously comply with radiation emission standards. Furthermore, if an initial $500,000 layer of insurance coverage is purchased, the important role played by the insurance industry in promoting public health and safety would be additional pressure on this industry to act in the public interest.

Third, the Report notes that any governmental program will result in "new additional forms of government supervision and regulation of private sector activities." Report, p. 78. Since the NRC comprehensively and tightly regulates this industry, the governmental indemnification that would act as excess or umbrella layer of insurance would not result in additional expenditures of governmental funds. Moreover, since the claims would be few, if any, the proposed amendment would not require substantial governmental resources for litigation.

Finally, the February 1986 Report states that a federal program of insurance would interfere with the ability of the insurance market to devise new policies to meet changing economic and social conditions. As noted in the March 1987 Update at page 9, "A recent NAIC [National Association of Insurance Commissioners] survey of State insurance departments found that 37 States reported availability problems with environmental liability. Most packaged policies (both Commercial Multiple Peril and Commercial General Liability Policies) now specifically exclude pollution risk of all types as part of their comprehensive coverage." Given the current market conditions, it is not expected that environmental liability insurance will become available in the foreseeable future. At the same time, no source - domestic or foreign - has been found for the specialized nuclear risk coverage required by nuclear pharmacies.

In summary, the proposed amendment will affirm the federal regulatory scheme while at the same time not exposing the United States to significant, if any, financial costs. If enacted, it will protect the continued availability and use of these vital, life-saving drugs. These pharmacies are not seeking a federal "bail-out" as a result of its mismanagement or its tortious conduct. It seeks limited assistance as a result of events totally beyond its control. Moreover, this amendment is similiar to the indemnification protection afforded to Superfund contractors that Congress recently enacted in the Superfund Amendments and Reauthorization Act of 1986.

VIII. Request for Congressional Action

The NANP strongly recommends that the Price-Anderson Act be amended to recognize the substantial liability now facing nuclear pharmacies and assist them so that the continued use and development of radiopharmaceuticals is ensured. Without Congressional action, the future of these life-saving diagnostic tools is jeopardized.

IX. Recommendations

(A) The NANP recommends that the Price-Anderson Act be amended to establish predictable and reasonable liability limits for persons or entities operating nuclear pharmacies or nuclear medicine departments of hospitals or clinics.

(B) The NANP also recommends an amendment that would exclude public liability claims for damages allegedly resulting from emissions of radioactive material at or below levels permitted by federal regulation. The amendment would expressly exclude and in no way affect claims by patients alleging medical malpractice or negligence arising out of the sale of radiopharmaceuticals.

If you have any questions, I would be pleased to address them. On behalf of the NANP, I would like to thank you for the opportunity to submit comments on this important issue.

Dr. Richard E. Keesee
Secretary
The National Association of
  Nuclear Pharmacies

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An Amendment to the Price-Anderson Act
Proposed by the National Association of Nuclear Pharmacies

This amendment to the Price-Anderson Act would set a liability limit of $500,000 per nuclear incident for each person or entity operating a nuclear pharmacy or a nuclear medicine department of a hospital or clinic. It would also prohibit any person from bringing claims against such a person or entity for damages resulting from emission levels lower than those permitted by NRC.

The Atomic Energy Act, 42 U.S.C. §2210 shall be amended by adding the following provision after Section 170(p):

> (q) Financial Protection Requirements for Persons or Entities Operating Nuclear Pharmacies or Nuclear Medicine Departments of Hospitals or Clinics
>
> The Commission shall enter into agreements of indemnification with all persons or entities operating one or more nuclear pharmacies or nuclear medicine departments of hospitals or clinics under byproduct materials licenses issued by the Commission or by an Agreement State and shall exempt such persons or entities from the financial protection requirements of subsection 170(a).
>
> (1) In all such agreements of indemnification, the Commission shall agree to indemnify and hold harmless such persons or entities from public liability in excess of $500,000 arising from nuclear incidents or other events in which any radioactive materials are involved in the practice of nuclear medicine.
>
> (2) No such persons or entities shall be subject to public liability claims for bodily injury, sickness, disease, death, or loss of or damage to property or loss of use of property arising out of or resulting from emissions of radioactive material at numerical levels permitted under licenses approved or regulations promulgated by the Commission; Provided however, that nothing in subsection (q) shall provide indemnification agreement coverage for or preclude claims arising out of the sale or use of radiopharmaceuticals dispensed or administered by nuclear pharmacies or nuclear medicine departments of hospitals or clinics.

This legislative change would help to insure that nuclear pharmacies and nuclear medicine departments of hospitals and clinics can continue to provide the types of medical services which have become an important part of the health care arsenal.

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

CHAIRMAN

September 12, 1986

The Honorable Edward J. Markey, Chairman
Subcommittee on Energy Conservation and Power
Committee on Energy and Commerce
United States House of Representatives
Washington, D. C. 20515

Dear Mr. Chairman:

Thank you for your letter of August 29, 1986. Enclosed are staff's responses to your questions in regard to Price-Anderson coverage of radiopharmacies.

Sincerely,

Thomas M. Roberts
Acting Chairman

Enclosure:
Responses to Questions

cc: Rep. Carlos Moorhead

Question 1. Does the Commission have authority under current law to extend Price-Anderson coverage to radiopharmacies? Has the Commission ever decided on whether coverage should be extended to these companies? When?

Answer.

Under subsection 170a. of the Atomic Energy Act of 1954, as amended, financial protection and government indemnity are mandatory for activities involving the construction and operation of production and utilization facilities, such as reactors, licensed under sections 103 and 104 of the Act. Subsection 170a. also allows NRC the discretion to require financial protection and to extend indemnity coverage to other NRC licensed activities not involving the operation of production or utilization facilities. Subsequent to the renewal of Price-Anderson in 1975, the Commission considered whether it should exercise its discretionary authority and require financial protection for materials licensees in general and specifically a certain class of materials licensees, i.e., those persons licensed to possess or use plutonium in plutonium processing and fuel fabrication facilities. After studying the issue, the Commission decided to exercise its discretionary authority by requiring financial protection of, and extending indemnity to, certain of these plutonium licensees. Based on subsequent work performed for NRC by the Oak Ridge National Laboratory (ORNL), NRC staff refinement of that work, and an in-house staff study of this question, the staff informed the Commission in 1980 that, in its view, no apparent need existed to extend Price-Anderson to other classes of materials licensees. This conclusion was based in part on the fact that the amount of radioactive material handled by these licensees would not result in accident scenarios that could involve third party liability claims greater than the amount of nuclear liability insurance available to fuel cycle licensees. While radiopharmacies and similar licensees that handle relatively small quantities of radioactive material were not specifically examined, this conclusion, based on licensees possessing much larger inventories of material, would appear to be equally valid for the licensees of smaller inventories.

Question 2. Has the Commission reviewed the potential public liability which could arise from the activity of a radiopharmacy? When? What is the risk of such liability? Please describe the Commission's findings on these questions for the Subcommittee.

Answer.

As described in the previous answer, it was the staff's conclusion in 1980, based on work performed by ORNL as well as in-house staff analysis, that the accidents involving quantities and types of radioactive material handled by materials licensees would not result in public liability claims beyond the amount of liability insurance coverage then available to these licensees.

Question 3. Has new information been discovered which would prompt the Commission to reexamine the question of extending Price-Anderson coverage to radiopharmacies? Is the Commission aware of any recent court decisions, either at the state or federal level, which might affect radiopharmacies? Please provide the Subcommittee with a legal memoranda examining recent court cases in this area and their potential impact on radiopharmacies and the Price-Anderson Act.

Answer.

There are two recent court cases in the State of Missouri, a non-Agreement State, which deal specifically with radiopharmacies. Maryland Heights Leasing, Inc. v. Mallinckrodt, Inc., 706 S.W.2d 218 (1985), and Bennett v. Mallinckrodt, Inc., 698 S.W.2d 854 (1985). In both of these cases plaintiff's complaint was dismissed by the trial court in response to defendant's motion to dismiss. As grounds for dismissal the trial court stated that it lacked subject matter jurisdiction and that the complaint failed to state a claim upon which relief could be granted. In both cases the Missouri Court of Appeals (Eastern District) reversed the trial court's judgment and remanded the case for a trial and judgment on the merits. Even though the Missouri Court of Appeals could have reversed both cases on narrow procedural grounds, in both instances the Court proceeded to discuss the merits of the case. Although both opinions are quite similar, the Court's opinion in Bennett v. Mallinckrodt, supra, is the more detailed of the two. In Bennett the defendant asserted that plaintiff's action was barred by the federal preemption doctrine. In response to this assertion, the Missouri court noted:

> In 1959, Congress amended the Atomic Energy Act and authorized the NRC to turn over some regulatory authority to those states [Agreement States] that adopted a suitable regulatory program, see 42 U.S.C. §2021, but states were still precluded from regulating the safety aspects of nuclear development, see 42 U.S.C. §2021(k). See also Pacific Gas & Electric Co v. State Energy Resources Conservation & Development Comm., 461 U.S. 190, 205 (1983); ...

The Missouri Court then proceeded to state that the United States "Supreme Court has declared, in essence, that states are precluded from regulating the safety aspects of nuclear development and of hazardous nuclear materials" citing Pacific Gas & Electric Co., 461 U.S. at 204, and Silkwood v.Kerr- McGee Corp., 104 S. Ct. 615, 622 (1984). It also stated, "This prohibition is premised on Congress' belief that the NRC is more qualified than the individual states to determine what type of safety standards should be enacted in this complex area." Silkwood, 104 S. Ct. at 622.

Question 3 (Continued)

The Missouri Court in Bennett used the existence of the Price-Anderson Act and the fact that one of its "cardinal attributes ...has been its minimal interference with State law" as partial justification for the following three propositions:

(1) As other manufacturers, producers, and operators functioning in a regulated field, Mallinckrodt is not guaranteed absolute insulation from the consequences of its acts through compliance with federal regulation;

(2) State law remedies, in whatever form they might take, are available to those injured by "nuclear incidents;" and

(3) States may be preempted from setting their own emission standards, but they are not preempted from compensating injured citizens.

Finally, the Court in Bennett asserted that the ALARA principle set forth in 10 C.F.R. §20.1(c) "clearly implies that federal standards are, at best, guidelines to state tort law," and "...the use of nuclear material is not yet so common that strict liability should not be applied [in Missouri] at this time."

It should be noted, however, that the legal principles relied on by the Missouri Court of Appeals are those applicable to production and utilization facilities, e.g. nuclear reactors, licensed by the NRC. Radiopharmacies are licensed by the NRC under section 81 of the Atomic Energy Act of 1954, as amended, or are licensed by an Agreement State pursuant to authority passed to such a State in accordance with section 274 of that Act. In fact there are 28 Agreement States which issue licenses to persons to acquire, possess, use, etc., source mateiral, byproduct material, and special nuclear material in quantities less than sufficient to form a critical mass.

Radiopharmacies are facing the same problem that is being faced by other segments of the medical community and by other radioactive materials licensees - the high cost and low availability of third party liability insurance. The NRC finds no "new information" that would prompt it to indemnify these radiopharmacies, particularly since many of them are Agreement State licensees regulated by the States.

Question 4. Is there a process under current law which would require the Commission to extend coverage of the Price-Anderson Act to NRC licensees not now covered? If the answer is yes, has this process ever been initiated by any NRC licensee? By a radiopharmaceutical company? If the answer is no, then please describe how NRC licensees not now covered by the Price-Anderson Act can receive coverage.

Answer.

There is no such requirement under the Price-Anderson Act. As discussed in a previous answer, the Commission has the discretionary authority to extend Price-Anderson coverage to materials licensees. Only one materials licensee, Kerr-McGee Corporation, has ever requested (in testimony before the Joint Committee on Atomic Energy) indemnification of plutonium processing activities under the Commission's discretionary authority and, in fact, the Commission exercised its discretionary authority for five such licensees. A request for the Commission to exercise its discretionary authority to indemnify the activities of radiopharmacies could be made in the form of a petition for rulemaking addressed to the Secretary of the Commission providing full details as to why such authority should be exercised (see 10 CFR 2.802).

Question 5. What is the level of insurance carried by radiopharmaceutical companies? How has this changed over the past ten years? How does their insurance coverage compare with other NRC licensees?

Answer.

The NRC does not have any information about the levels of insurance maintained by radiopharmaceutical companies.

Question 6. Does the Commission believe that the Price-Anderson Act should be extended to cover radiopharmacies? Why or why not? If the answer is yes, please include recommendations as to how the Act should be amended to accomplish that goal. If the answer is no, please explain to the Subcommittee why the concerns raised by some radiopharmacy companies do not warrant action under the Price-Anderson Act.

Answer.

The staff does not have any information that would lead it to recommend to the Commission that radiopharmacies should be indemnified under the Commission's discretionary authority. Based both on previous risk/consequence studies alluded to in the previous answers and the fact that no new information has been developed that would render these studies obsolete, the staff believes that in the event of an accident the quantities and types of radioactive material utilized by radiopharmacies would not result in significant offsite public liability consequences for which adequate insurance could not be purchased. The 1957 legislative history of the Price-Anderson Act states the following about the discretionary authority provision:

> "In addition, the Commission is given the option of requiring financial protection for any license issued under section 53, 63, or 81... It is not expected that ordinarily the Commission will use the authority given it with respect to those latter three types of materials. However, there may be rare instances in which the licensee of a facility may have larger quantities of materials or such quantities of especially dangerous or hazardous materials as to warrant the imposition of the provisions of this bill. (Senate Report No. 296, 85th Congress, 1st Session, May 9, 1957, p. 19)."

No new information has been brought to our attention that would warrant further Commission consideration of this question at the present time.

II

100TH CONGRESS
1ST SESSION

S. 44

To amend the Atomic Energy Act of 1954, as amended, to establish a comprehensive, equitable, reliable, and efficient mechanism for full compensation of the public in the event of an accident arising out of activities of Nuclear Regulatory Commission licensees or undertaken pursuant to the Nuclear Waste Policy Act of 1982 involving nuclear materials, and to reduce the likelihood of such an accident.

IN THE SENATE OF THE UNITED STATES

JANUARY 6, 1987

Mr. MOYNIHAN introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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A BILL

To amend the Atomic Energy Act of 1954, as amended, to establish a comprehensive, equitable, reliable, and efficient mechanism for full compensation of the public in the event of an accident arising out of activities of Nuclear Regulatory Commission licensees or undertaken pursuant to the Nuclear Waste Policy Act of 1982 involving nuclear materials, and to reduce the likelihood of such an accident.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. This Act may be cited as the "Price-Anderson Enhancement Act of 1987".

SEC. 2. Section 170 b. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"b. The amount of financial protection required shall be the amount of liability insurance available from private sources, except that the Commission may establish a lesser amount on the basis of criteria set forth in writing, which it may revise from time to time, taking into consideration such factors as the following: (1) the cost and terms of private insurance, (2) the type, size, and location of the licensed activity and other factors pertaining to the hazard, and (3) the nature and purpose of the licensed activity: *Provided,* That for facilities designed for producing substantial amounts of electricity and having a rated capacity of one hundred thousand electrical kilowatts or more, the amount of financial protection required shall be the maximum amount available at reasonable cost and on reasonable terms from private sources. Such financial protection may include private insurance, private contractual indemnities, self insurance, other proof of financial responsibility, or a combination of such measures and shall be subject to such terms and conditions as the Commission may, by rule, regulation, or order, prescribe. In prescribing such terms and conditions for licensees required to have and maintain financial protection equal to the maximum amount of liability insurance available from private sources, the Commission shall, by rule initially prescribed not later than twelve months from the date of enactment of this Act, include, in determining such maximum amount, private liability insurance available under an industry retrospective rating plan providing for annually assessed premium charges deferred in whole or major part until public liability from a nuclear incident exceeds or appears likely to exceed the level of primary financial protection required of the licensee involved in the nuclear incident: *Provided further,* That such insurance is available to, and required of, all of the licensees of such facilities without regard to the manner in which they obtain other types of such financial protection: *Provided further,* That the maximum deferred premium which may be charged for all nuclear incidents under such a plan shall not be less than $10,000,000 per year or more than $15,000,000 per year for each facility required to maintain the maximum amount of financial protection except as provided further under this subsection: *Provided further,* That the above mentioned limits shall be in constant dollars as of January 1, 1987, and that the Commission shall adjust the maximum deferred premium for inflation as indicated by the Gross National Product deflator: *And provided further,* That the annual amount which may be charged a licensee shall not exceed the licensee's pro rata share, calculated on a yearly basis, of the aggregate public liability claims and costs rising out of nuclear incidents. Payment of any State premium taxes which may be applicable to any deferred premium provided for in this Act shall be the responsibility of the licensee and shall not be included in the retrospective premium established by the Commission. The Commission shall establish such requirements as are necessary to assure availability of funds to meet any assessment of deferred premiums within a reasonable time when due, and may provide reinsurance or shall otherwise guarantee the payment of such premiums in the event it appears that the amount of such premiums will not be available on a timely basis through the resources of private industry and insurance. Any agreement by the Commission with a licensee or indemnitor to guarantee the payment of deferred premiums may contain such terms as the Commission deems appropriate to carry out the purposes of this section and to assure reimbursement to the Commission for its payments made due to the failure of such licensee or indemnitor to meet any of its obligations arising under or in connection with financial protection required under this subsection including without limitation terms creating liens upon the licensed facility and the revenues derived therefrom or any other property or revenues of such licensee to secure such reimbursement and consent to the automatic revocation of any license.

"In order to establish the amount of the deferred premium established under this subsection, not later than one month after the date of enactment of the Price-Anderson Improvement Act of 1986, and every twelve months therefter, the Commission shall collect and provide information relating to the operational performance and safety record of each licensed facility that is required to have the maximum amount of financial protection available pursuant to this subsection for the preceding twelve-month period, including (but not limited to) the reports prepared under the Systematic Assessment for Licensee Performance Program, to the Institute for Nuclear Power Operations or such other body of experts as the Commission deems appropriate and willing to undertake the evaluation required by this subsection. Based upon the information provided by the Commission, the Institute or such other body shall identify those facilities that constitute the 10 per centum of all facilities which have the best operational performance and safety record for the period for which information is available and those facilities that constitute the 10 per centum of all facilities which have the worst operational performance and safety record for the period for which information is available. Such identification shall be based on such safety-related aspects of operational performance as the number of abnormal occurrences, frequency of unscheduled maintenance, frequency of scheduled maintenance, and competence and training of operating personnel. Not later than three months after receipt of such information from the Commission, the Institute or such other body shall submit to the Commission such identification of facilities. The Commission, after notice and comment, including the opportunity for public hearing, and based on the identification of facilities submitted by the Institute or such other body, shall establish three classes of licensed facilities: the 10 per centum of all facilities which have the best operational performance and safety record for the period for which information is available, the 10 per centum of all facilities which have the worst operational performance and safety record for the period for which information is available, and the balance of all other facilities. Any petition for the judicial review of the placement of any facility in one of these three classes shall be filed within ninety days of the action of the Commission establishing such classes, and such action shall not be subject to judicial review in any proceeding involving the establishment or collection of any deferred premium. In the event of an accident for which deferred premiums are assessed, the deferred premium for a facility in the class of facilities with the best operational performance and safety record shall be one-fifth lower than that generally applicable to all facilities, notwithstanding the limits otherwise applicable under this subsection, and the deferred premium for a facility in the class of facilities with the worst operational performance and safety record shall be one-fifth higher than that generally applicable to all facilities, notwithstanding the limits otherwise applicable under this subsection. In the event that the Commission fails to establish the classes of facilities required by the preceding sentence prior to an accident for which deferred premiums are assessed, all facilities referred to in this subsection shall be assessed deferred premiums in an amount equal to the largest deferred premium that would otherwise be assessed for any such facility under this subsection.

"There are authorized to be appropriated in any fiscal year as repayable advances such sums as may be necessary to pay public liability claims from a nuclear incident that are in excess of the deferred premiums that will have been collected by the end of such fiscal year from licensees. Advances made pursuant to the previous sentence shall be repaid to the general fund of the Treasury out of the deferred premiums received in subsequent fiscal years.".

SEC. 3. Section 170 c. of the Atomic Energy Act of 1954, as amended, is amended by striking "August 1, 1987" wherever it appears, and inserting in lieu thereof "August 1, 2002".

SEC. 4. Section 170 d. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"d. (1)(A) In addition to any other authority the Secretary of Energy (hereinafter in this section referred to as the

Secretary) may have, the Secretary is authorized until August 1, 2002, to enter into agreements of indemnification with the contractors of the Secretary for the construction or operation of production or utilization facilities or other activities under contracts for the benefit of the United States involving activities under the risk of public liability for a substantial nuclear incident.

"(B) The authority conferred upon the Secretary pursuant to paragraph (A) to enter into agreements of indemnification with contractors shall include contracts entered into by the Secretary for the purpose of carrying out such activities as the Secretary is authorized to undertake, pursuant to this Act or any other law, involving the storage or disposal of spent nuclear fuel, high-level radioactive waste, or transuranic waste, including the transportation of such materials to or from a storage or disposal site or facility, or test and evaluation facility, the treatment or packaging of such materials to be stored in, disposed of, or used in such a site or facility, and the identification, development, licensing, contruction, operation, decommissioning, and post-decommissioning maintenance and monitoring of any such site or facility. For all such activities, the authority conferred upon the Secretary pursuant to subsection d. shall be the exclusive means of indemnification under this section.

"(C) With respect to such contractual activities for which the Secretary may make expenditures from the Nuclear Waste Fund established in section 302 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10222):

"(i) The Secretary shall enter into agreements of indemnification with each contractor of the Secretary carrying out such contractual activities under the risk of public liability for a nuclear incident. In such agreements of indemnification the Secretary may require the contractor to provide and maintain financial protection of such a type and in such amounts as the Secretary shall determine to be appropriate to cover public liability arising out of or in connection with such contractual activities, including the storage, disposal, and related transportation of high-level radioactive waste and spent nuclear fuel. The Secretary shall indemnify the persons indemnified against such claims above the amount of financial protection required. Such indemnification shall include the reasonable costs of investigating and settling claims and defending suits to the extent that such costs are not covered by the amount of financial protection required.

"(ii) The Secretary shall make any payments required under an agreement of indemnification entered into under this subparagraph from amounts available through the Nuclear Waste Fund. The Secretary shall include the costs incurred by the Nuclear Waste Fund under this section in any review of whether the fees established to generate revenue for the Nuclear Waste Fund are sufficient to offset the costs incurred by the Nuclear Waste Fund, including the annual review by the Secretary pursuant to section 302(a)(4) of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10222(a)(4)).

"(2) In such agreements of indemnification other than specified in subsection d. (1)(C) the Secretary may require the contractor to provide and maintain financial protection of such a type and in such amounts as the Secretary shall determine to be appropriate to cover public liability arising out of or in connection with the contractual activity and shall indemnify the persons indemnified against such claims above the amount of financial protection required, in the amount of $500,000,000, excluding costs of investigating and settling claims and defending suits for damage in the aggregate for all persons indemnified in connection with such contract and for each nuclear incident: *Provided,* That this amount of indemnity shall be reduced by the amount that the financial protection required shall exceed $60,000,000.

"(3) In the case of nuclear incidents occurring outside the United States, the amount of the indemnity provided by the Secretary shall not exceed $100,000,000.

"(4) The provisions of this subsection may be applicable to lump sum as well as cost type contracts and to contracts and projects financed in whole or in part by the Secretary.

"(5) A contractor with whom an agreement of indemnification has been executed and who is engaged in activities connected with the underground detonation of a nuclear explosive device shall be liable, to the extent so indemnified under this section, for injuries or damage sustained as a result of such detonation in the same manner and to the same extent as would a private person acting as principal, and no immunity or defense founded in the Federal, State, or municipal character of the contractor or of the work to be performed under the contract shall be effective to bar such liability.".

SEC. 5. Section 170 e. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"e. (1) With respect to liability for one or more nuclear incidents covered by an industry retrospective rating plan required by subsection 170 b., the aggregate payments in any year by or on behalf of persons indemnified, including the reasonable costs of investigating and settling claims and defending suits for damage, shall not be required to exceed the amount of financial protection provided in that year under subsection 170 b. The funds provided by financial protection under subsection 170 b. in any year by or on behalf of such persons indemnified, including the reasonable costs of investigating and settling claims and defending suits for damage, shall be the exclusive source of payments for public liability claims.

"(2) With respect to all other nuclear incidents, except as provided in subsection d. (1)(C), the aggregate liability for a single nuclear incident of persons indemnified, including the reasonable costs of investigating and settling claims and defending suits for damage, shall not exceed (a) the sum of $500,000,000 together with the amount of financial protection required of the licensee or contractor, or (b) if the amount of financial protection required of the licensee exceeds $60,000,000, such aggregate liability shall not exceed the sum of $560,000,000 or the amount of financial protection required of the licensee, whichever is greater: *Provided* That in the event of a nuclear incident involving damages in excess of that amount of aggregate liability, Congress will thoroughly review the particular incident and will take whatever action is deemed necessary and appropriate to protect the public from the consequences of a disaster of such magnitude: *Provided further,* That with respect to any nuclear incident occurring outside of the United States to which an agreement of indemnification entered into under the provisions of subsection 170 d. is applicable, such aggregate liability shall not exceed the amount of $100,000,000 together with the amount of financial protection required of the contractor.".

Sec. 6. Section 170 h. of the Atomic Energy Act of 1954, as amended, is amended—

(1) by inserting after "Commission" wherever it appears the following: "or the Secretary, as appropriate,"; and

(2) by inserting at the beginning of the last sentence the following: "Except with respect to activities indemnified under subsection d. (1)(C),".

Sec. 7. Section 170 i. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"i. After any nuclear incident which will probably require payments by the United States under this section or after any extraordinary nuclear occurrence, the Commission or the Secretary, as appropriate, shall make a survey of the causes and extent of damage which shall forthwith be reported to the Congress, to the Congressmen of the affected districts, and to the Senators of the affected States, and, except for information which would cause serious damage to the national defense of the United States, all final findings shall be made available to the public, to the parties involved and to the courts. The Commission and the Secretary shall report annually to the Congress on the operations under this section.".

SEC. 8. Section 170 k. of the Atomic Energy Act of 1954, as amended, is amended by striking out "August 1, 1987" wherever it appears and inserting in lieu thereof "August 1, 2002".

SEC. 9. Section 170 n. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"n (1) With respect to any extraordinary nuclear occurrence to which an insurance policy or contract furnished as proof of financial protection or an indemnity agreement applies and which—

"(a) arises out of or results from or occurs in the course of the construction, possession, or operation of a production or utilization facility, or

"(b) arises out of or results from or occurs in the course of transportation of source material, byproduct material, or special nuclear material to or from a production or utilization facility, or

"(c) during the course of the contract activity arises out of or results from the possession, operation, or use by a Department of Energy contractor or subcontractor for a device utilizing special nuclear material or byproduct material, or "(d) arises out of or results from or occurs in the course of the construction, possession, or operation of any facility licensed under section 53, 63, or 81 of this Act, for which the Commission has imposed as a condition of the license a requirement that the licensee have and maintain financial protection pursuant to subsection 170 a., or for which an indemnity agreement is executed pursuant to subsection 170 k., or

"(e) arises out of or results from or occurs in the course of transportation of source material, byproduct material, or special nuclear material to or from any facility licensed under section 53, 63, or 81 of this Act, for which the Commission has imposed as a condition of the license a requirement that the licensee have and maintain financial protection pursuant to section 170 a., or for which an indemnity agreement is executed pursuant to subsection 170 k., or

"(f) arises out of or results from or occurs in the course of activities undertaken by the Secretary, including activities undertaken by contract, in connection with the storage or disposal of high-level waste, spent fuel, or transuranic waste, including the transportation of such materials to or from a storage or disposal site or facility or test and evaluation facility, the treatment or packaging of such materials to be stored in, disposed of, or used in such a site or facility, and the identification, development, licensing, construction, operation, decommissioning, and post-decommissioning maintenance and monitoring of any such site or facility,

and which does not arise out of or result from or occur in the course of an activity for which the Secretary may make expenditures from the Nuclear Waste Fund, the Commission, or the Secretary, as appropriate, may incorporate provisions in indemnity agreements with licensees and contractors under this section and may require provisions to be incorporated in insurance policies or contracts furnished as proof of financial protection, and, with respect to any extraordinary nuclear occurrence to which an insurance policy or contract furnished as proof of financial protection applies and which arises out of or results from or occurs in the course of an activity for which the Secretary may make expenditures from the Nuclear Waste Fund, the Secretary shall incorporate provisions in indemnity agreements and shall require provisions to be incorporated in insurance policies or contracts furnished as proof of financial protection, which waive (i) any issue or defense as to conduct of the claimant or fault of persons indemnified; (ii) any issue or defense as to charitable or governmental immunity, and (iii) any issue or defense based on any statute of limitations if suit is instituted within three years from the date on which the claimant first knew, or reasonably could have known, of his injury or damage and the cause thereof, but in no event more than thirty years after the date of the nuclear incident. The waiver of any such issue or defense shall be effective regardless of whether such issue or defense may otherwise be deemed jurisdictional or relating to an element in the cause of action. When so incorporated, such waivers shall be judicially enforceable in accordance with their terms by the claimant against the person indemnified. Such waivers shall not preclude a defense based upon a failure to take reasonable steps to mitigate damages, nor shall such waivers apply to injury or damage to a claimant or to a claimant's property which is intentionally sustained by the claimant or which results from a nuclear incident intentionally and wrongfully caused by the claimant. The waivers authorized in this subsection shall, as to indemnitors, be effective only with respect to those obligations set forth in the insurance policies or the contracts furnished as proof of financial protection and in the indemnity agreements. Such waivers shall not apply to, or prejudice the prosecution or defense of, any claim or portion of claim which is not within the protection afforded under (i) the terms of insurance policies or contracts furnished as proof of financial protection, or indemnity agreements, and (ii) the limit of liability or limit of payment provisions of subsection 170 e. .

"(2) With respect to any public liability action arising out of or resulting from an extraordinary nuclear occurrence, the United States district court in the district where the extraordinary nuclear occurrence takes place, or in the case of an extraordinary nuclear occurrence taking place outside the United States, the United States District Court for the District of Columbia, shall have original jurisdiction without regard to the citizenship of any party or the amount in controversy. Upon motion of the defendant or of the Commission or the Secretary, as appropriate, any such action pending in any State court or United States district court shall be removed or transferred to the United States district court having venue under this subsection. Process of such district court shall be effective throughout the United States.

"(3) With respect to any public liability action arising out of or resulting from any extraordinary nuclear occurrence, the Commission, or Secretary, as appropriate, shall, and any other indemnitor or other interested person may, submit to the district court having original jurisdiction pursuant to subparagraph (2), a plan for the disposition of pending claims and for the distribution of remaining funds available. Such a plan shall include an allocation of appropriate amounts for personal injury claims, property damage claims, and possible latent injury claims which may not be discovered until a later time and shall include establishment of priorities between claimants and classes of claims, as necessary to insure the most equitable allocation of available funds. Such court shall have all power necessary to approve, disapprove, or modify plans proposed, or to adopt another plan; and to determined the proportionate share of funds available for each claimant. The Commission or the Secretary, as appropriate, any other indemnitor, and any person indemnified shall be entitled to such orders as may be appropriate to implement and enforce the provisions of this section, including orders limiting the liability of the persons indemnified, orders approving or modifying the plan, orders staying the payment of claims and the execution of court judgments, orders apportioning the payments to be made to claimants, and orders permitting partial payments to be made before final determination of the total claims. The orders of such court shall be effective throughout the United States.".

SEC. 10. Section 170 o. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"o. Whenever the United States district court in the district where a nuclear incident occurs, or the United States district court for the District of Columbia in case of a nuclear incident occurring outside the United States, determines upon the petition of any indemnitor or other interested person that public liability from a single nuclear incident may exceed in any year the amount of financial protection available in that year under subsection 170 b., or the limit of liability under subsection 170 e. (2), as appropriate:

"(1) Total payments made by or for all indemnitors as a result of such nuclear incident shall not exceed 33⅓ per centum of such amount of financial protection, or 15 per centum of such limit of liability, as appropriate, without the prior approval of such court.

"(2) The court shall not authorize payments in excess of 33⅓ per centum of such amount of financial protection, or 15 per centum of such limit of liability, as appropriate, unless the court determines that such payments are or will be in accordance with a plan of distribution which has been approved by the court or such payments are not likely to prejudice the subsequent adoption and implementation by the court of a plan of distribution pursuant to subparagraph (3) of subsection (n).

"(3) In situations where public liability is limited by the provisions of subsection 170 e. (2), the Commission or the Secretary, as appropriate, shall, within ninety days after a court shall have made such determination, deliver to the Congress a supplement to the report prepared in accordance with subsection 170 i. of this Act, setting forth the estimated requirements for full compensation and relief of all claimants, and recommendations as to the relief to be provided.".

SEC. 11. Section 170 p. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"p. In the event of two or more nuclear incidents for which public liability claims require payment from the industry retrospective rating plan under subsection 170 b., and for which there are outstanding public liability claims:

"(1) The maximum amount of private insurance available in any year for all nuclear incidents under the industry retrospective rating plan shall be apportioned equally, in the manner prescribed herein, among the nuclear incidents in that year to which the industry retrospective rating plan applies. The maximum amount of private insurance available in any year under the industry retrospective rating plan to satisfy the aggregate public liability claims resulting from a single nuclear incident shall be the quotient obtained by dividing the maximum amount of private insurance available in that year by the number of nuclear incidents to which the industry retrospective rating plan applies in that year. In the event that the aggregate public liability claims resulting from any single nuclear incident(s) in any year are less than the quotient for that year, the amount of private insurance constituting the difference shall be apportioned equally, in the same manner, among the remaining nuclear incidents for which the aggregate public liability claims exceed the quotient for that year.

"(2) In the event that the amount of insurance available in any year under the industry retrospective rating plan for public liability claims for a nuclear incident is reduced, pursuant to subparagraph (1) of this subsection, from the amount specified originally in the plan of the district court prepared pursuant to subsection 170 n. (3), such district court shall modify the original plan as necessary to insure the most equitable allocation of available funds. For purposes of such modifications, the district court shall have the same powers and authority as in adopting the original plan.".

SEC. 12. Section 170 of the Atomic Energy Act of 1954, as amended, is amended by adding the following new subsection at the end thereof:

"q. The Commission and the Secretary shall submit to the Congress by August 1, 1998, detailed reports concerning the need for continuation or modification of the provisions of this section, taking into account the condition of the nuclear industry, availability of private insurance, and the state of knowledge concerning nuclear safety at that time, among other relevant factors, and shall include recommendations as to the repeal or modification of any of the provisions of this section.".

DEFINITIONS

SEC. 13. (a) Subsection s. of section 11 of the Atomic Energy Act of 1954, as amended, is amended by adding at the end thereof the following: "For purposes of those activities that the Secretary of Energy is authorized or directed to undertake, pursuant to this Act or any other law, that involve the risk of public liability for a substantial nuclear incident as a result of the storage or disposal of spent nuclear fuel, high-level radioactive waste, or transuranic waste, including the transportation of such materials to or from a storage or disposal site or facility, or test and evaluation facility, the treatment or packaging of such materials to be stored in, disposed of, or used in any such a site or facility, and the identification, development, licensing, construction, operation, decommissioning, and post-decommissioning maintenance and monitoring of such site or facility, the Secretary shall, to the extent that such activities are not undertaken by contract, be considered as if the Secretary were a contractor with whom an indemnity agreement has been entered into pursuant to subsection d. of this Act.".

(b) Subsection w. of section 11 of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"w. The term public liability means any legal liability arising out of or resulting from a nuclear incident, except: (i) claims under State or Federal workmen's compensation acts of employees of persons indemnified who are employed at the site of and in connection with the activity where the nuclear incident occurs; (ii) claims arising out of an act of war; (iii) whenever used in subsection 170 a., c., and k., claims for loss of, or damage to, or loss of use of property which is located at the site of and used in connection with the licensed activity where the nuclear incident occurs; and (iv) claims for punitive damages. Public liability also includes damage to property of persons indemnified: *Provided,* That such property is covered under the terms of the financial protection required, except property which is located at the site of and used in connection with the activity where the nuclear incident occurs.".

(c) Section 11 of the Atomic Energy Act of 1954, as amended, is amended by adding the following new subsection at the end thereof:

"dd. The term Nuclear Waste Fund means the Nuclear Waste Fund established in section 302 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10222).".

CONFORMING AMENDMENTS

SEC. 14. Subsections g., j., and m. of section 170 of the Atomic Energy Act of 1954, as amended, are amended by inserting after "Commission" wherever it appears the following: "or the Secretary, as appropriate,".

SEC. 15. Section 170. a. of the Atomic Energy Act of 1954, as amended, is amended by striking in the first sentence "the Commission" and inserting in lieu thereof "the Nuclear Regulatory Commission (hereinafter in this section referred to as "the Commission").

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II

100TH CONGRESS
1ST SESSION

S. 843

To amend the Price-Anderson provisions of the Atomic Energy Act of 1954 to extend and improve the procedures for the protection of the public from nuclear incidents.

IN THE SENATE OF THE UNITED STATES

MARCH 25 (legislative day, MARCH 24), 1987

Mr. STAFFORD introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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A BILL

To amend the Price-Anderson provisions of the Atomic Energy Act of 1954 to extend and improve the procedures for the protection of the public from nuclear incidents.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Price-Anderson Amendments Act of 1987".

SEC. 2. FINANCIAL PROTECTION.

(a) PRIMARY FINANCIAL PROTECTION AMOUNT REQUIRED FOR LARGE ELECTRICAL GENERATING FACILI-

TIES.—Section 170 b. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(b)) is amended—

(1) by inserting "primary" before "financial protection" the first, second, third, and sixth places it appears;

(2) by inserting before the period at the end of the proviso in the first sentence the following: "(excluding the amount of private liability insurance available under the industry retrospective rating plan required in this subsection)"; and

(3) by striking in the third sentence all that precedes "private liability insurance" and inserting the following: "The Commission shall require licensees that are required to have and maintain primary financial protection equal to the maximum amount of liability insurance available from private sources to maintain, in addition to such primary financial protection,".

(b) STANDARD DEFERRED PREMIUM AMOUNT.—Section 170 b. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(b)) is amended—

(1) in the second proviso of the third sentence by striking "That" and all that follows through "protection" and inserting the following: "That the aggregate amount of the standard deferred premium that may be charged following any nuclear incident under such a

plan shall not be more than $63,000,000 (but not more than $10,000,000 in any 1 year) for each facility required to maintain the maximum amount of primary financial protection"; and

(2) in the third proviso of the third sentence, by striking "and costs".

(c) LESSER ANNUAL DEFERRED PREMIUM AMOUNTS.—Section 170 b. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(b)) is amended—

(1) by inserting "(1)" after the subsection designation;

(2) in the first sentence, by redesignating clauses (1) through (3) as clauses (A) through (C), respectively;

(3) by striking the fifth and sixth sentences; and

(4) by adding at the end of the fourth sentence the following new paragraph:

"(2)(A) The Commission may, on a case by case basis, assess annual deferred premium amounts less than the standard annual deferred premium amount assessed under paragraph (1)—

"(i) for any facility, if more than one nuclear incident occurs in any one calendar year; or

"(ii) for any licensee licensed to operate more than one facility, if the Commission determines that the financial impact of assessing the standard annual deferred premium amount under paragraph (1) would result in undue financial hardship to such licensee or the ratepayers of such licensee.

"(B) In the event that the Commission assesses a lesser annual deferred premium amount under subparagraph (A), the Commission shall require payment of the difference between the standard annual deferred premium assessment under paragraph (1) and any such lesser annual deferred premium assessment within a reasonable period of time, with interest at a rate determined by the Secretary of the Treasury on the basis of the current average market yield on outstanding marketable obligations of the United States of comparable maturities during the month preceding the date that the standard annual deferred premium assessment under paragraph (1) would become due.".

(d) BORROWING AUTHORITY.—Section 170 b. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(b)) is amended—

(1) by inserting "(3)" before the penultimate sentence and redesignating the penultimate and last sentences as a paragraph (3); and

(2) by adding at the end the following new paragraph:

"(4)(A) In the event that, the funds available to pay valid claims in any year are insufficient as a result of the limitation on the amount of deferred premiums that may be required of a licensee in any year under paragraph (1) or (2), or the Commission is required to make reinsurance or guaranteed payments under paragraph (3), the Commission shall, in order to advance the necessary funds—

"(i) request the Congress to appropriate sufficient funds to satisfy such payments; or

"(ii) to the extent approved in appropriation Acts, issue to the Secretary of the Treasury obligations in such forms and denominations, bearing such maturities, and subject to such terms and conditions as may be agreed to by the Commission and the Secretary of the Treasury.

"(B) Except for funds appropriated for purposes of making reinsurance or guaranteed payments under paragraph (3), any funds appropriated under subparagraph (A)(i) shall be repaid to the general fund of the United States Treasury from amounts made available by standard deferred premium assessments, with interest at a rate determined by the Secretary of the Treasury on the basis of the current average market yield on outstanding marketable obligations of the United States of comparable maturities during the month preceding the date that the funds appropriated under such subparagraph are made available.

"(C) Except for funds appropriated for purposes of making reinsurance or guaranteed payments under paragraph (3), redemption of obligations issued under subparagraph (A)(ii) shall be made by the Commission from amounts made available by standard deferred premium assessments. Such obligations shall bear interest at a rate determined by the Secretary of the Treasury by taking into consideration the average market yield on outstanding marketable obligations to the United States of comparable maturities during the month preceding the issuance of the obligations under this paragraph. The Secretary of the Treasury shall purchase any issued obligations, and for such purpose the Secretary of the Treasury may use as a public debt transaction the proceeds from the sale of any securities issued under chapter 31 of title 31, United States Code, and the purposes for which securities may be issued under such chapter are extended to include any purchase of such obligations. The Secretary of the Treasury may at any time sell any of the obligations acquired by the Secretary of the Treasury under this paragraph. All redemptions, purchases, and sales by the Secretary of the Treasury of obligations under this paragraph shall be treated as public debt transactions of the United States.".

SEC. 3. INDEMNIFICATION AGREEMENTS FOR ACTIVITIES OF NUCLEAR REGULATORY COMMISSION LICENSEES.

Section 170 c. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"(c). The Commission shall, with respect to licensees issued between August 30, 1954 and August 1, 1997, agree to indemnify and hold harmless the licensee and other persons indemnified, as their interests may appear, from public liability arising from nuclear incidents which is in excess of the amount of financial protection required of the licensee. Any payments required pursuant to such an agreement of indemnification for public liability in excess of the maximum amount of financial protection required of the licensees covered by an industry retrospective rating plan required by section 170 b. shall be made in accordance with the provisions of section 170 i. Such a contract of indemnification shall cover public liability arising out of or in connection with the licensed activity, including costs of investigating and settling claims and defending suits for damage. With respect to any production or utilization facility for which a construction permit is issued between August 30, 1954 and August 1, 1997, the requirements of this subsection shall apply to any license issued for such facility subsequent to August 1, 1997.".

SEC. 4. INDEMNIFICATION AGREEMENTS FOR ACTIVITIES UNDERTAKEN UNDER CONTRACT WITH DEPARTMENT OF ENERGY.

(a) In General.—Section 170 d. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is amended to read as follows:

"d. Indemnification of Contractors by Department of Energy.—(1)(A) In addition to any other authority the Secretary of Energy (in this section referred to as the 'Secretary') may have, the Secretary shall, until August 1, 1997, enter into agreements of indemnification with any person who may conduct activities under a contract with the Department of Energy that involve the risk of public liability.

"(B)(i)(I) For all nuclear waste activities, indemnification under subparagraph (A) shall be the exclusive means of indemnification under this section.

"(II) In any such agreement of indemnification, the provisions relating to the waiver of any issue or defense as to charitable or governmental immunity, authorized in subsection n. (1) to be incorporated in agreements of indemnification, may also be made applicable to nuclear incidents arising out of nuclear waste activities.

"(ii) For the purpose of compensating public liability claims, as defined in section 11 w., arising out of nuclear waste activities funded by the Nuclear Waste Fund established in section 302 of the Nuclear Waste Policy Act of

1982 (42 U.S.C. 10222), the Secretary shall make available funds from the Nuclear Waste Fund in an amount not to exceed the maximum amount of financial protection required of licensees under subsection b. and subject to the limitations in section 302(e)(2) of such Act.

"(iii) Public liability claims arising out of nuclear waste activities not specified in clause (ii), shall be compensated in accordance with the provisions of this Act and, to the extent approved in appropriation Acts, from the general revenues of the Treasury.

"(2) In agreements of indemnification entered into under paragraph (1), the Secretary may require the contractor to provide and maintain financial protection of such a type and in such amounts as the Secretary shall determine to be appropriate to cover public liability arising out of or in connection with the contractual activity, and shall indemnify the persons indemnified against such claims above the amount of the financial protection required, to the full extent of the aggregate public liability of the persons indemnified for each nuclear incident, excluding costs of investigating and settling claims and defending suits for damage.

"(3) Notwithstanding paragraph (2), if the maximum amount of financial protection required of licensees under subsection b. is increased by the Commission, the amount of indemnity, together with any financial protection required of the contractor, shall at all times remain equal to or greater than the maximum amount of financial protection required of licensees under subsection b. The amount of indemnity provided contractors under this subsection shall not, at any time, be reduced in the event that the maximum amount of financial protection required of licensees is reduced. The Secretary shall amend any agreement of indemnification under which the Secretary may be required to indemnify any person under this subsection to provide for any increase required by this paragraph in the amount of indemnity required by this subsection.

"(4) In the case of nuclear incidents occurring outside the United States, the amount of the indemnity provided by the Secretary under this subsection shall not exceed $100,000,000.

"(5) The provisions of this subsection may be applicable to lump sum as well as cost type contracts and to contracts and projects financed in whole or in part by the Secretary.

"(6) A contractor with whom an agreement of indemnification has been executed and who is engaged in activities connected with the underground detonation of a nuclear explosive device shall be liable, to the extent so indemnified under this section, for injuries or damage sustained as a result of such detonation in the same manner and to the same extent as would a private person acting as principal, and no immunity or defense founded in the Federal, State, or municipal character of the contractor or of the work to be performed under the contract shall be effective to bar such liability.

"(7) Any payments required pursuant to an agreement of indemnification entered into under this subsection for public liability in excess of the maximum amount of financial protection required of the licensees covered by an industry retrospective rating plan required by subsection b. shall be made in accordance with the provisions of subsection i.".

(b) DEFINITIONS.—Section 11 of the Atomic Energy Act of 1954 (42 U.S.C. 2014) is amended by adding at the end the following new subsections:

"dd. The terms 'high-level radioactive waste' and 'spent nuclear fuel' have the meanings given such terms in section 2 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101).

"ee. The term 'transuranic waste' means material contaminated with elements that have an atomic number greater than 92, including neptunium, plutonium, americium, and curium, and that are in concentrations greater than 10 nanocuries per gram, or in such other concentrations as the Nuclear Regulatory Commission may prescribe to protect the public health and safety.

"ff. The term 'nuclear waste activities', as used in section 170 d., means activities that the Secretary of Energy is authorized to undertake, under this Act or any other law, involving the storage, handling, transportation, treatment, or disposal of, or research and development on, spent nuclear fuel, high-level radioactive waste, or transuranic waste, including (but not limited to) activities authorized to be carried out under the Waste Isolation Pilot Project under section 213 of Public Law 96-164 (93 Stat. 1265).".

SEC. 5. PRECAUTIONARY EVACUATIONS.

(a) COSTS INCURRED BY STATE GOVERNMENTS.—Section 11 w. of the Atomic Energy Act of 1954 (42 U.S.C. 2014(w)) is amended by inserting after "nuclear incident" the first place it appears the following: "or precautionary evacuation (including all reasonable additional costs incurred by a State, or a political subdivision of a State, in the course of responding to a nuclear incident or a precautionary evacuation)".

(b) DEFINITION.—Section 11 of the Atomic Energy Act of 1954 (42 U.S.C. 2014), as previously amended by this Act, is further amended by adding at the end the following new subsection:

"gg. The term 'precautionary evacuation' means an evacuation of the public within a specified area near a nuclear facility, or the transportation route in the case of an accident involving transportation of source material, special nuclear material, byproduct material, high-level radioactive waste, spent nuclear fuel, or transuranic waste to or from a production or utilization facility, if the evacuation is—

"(1) the result of any event that is not classified as a nuclear incident but that poses imminent danger of bodily injury or property damage from the radiological properties of source material, special nuclear material, byproduct material, high-level radioactive waste, spent nuclear fuel, or transuranic waste, and causes an evacuation; and

"(2) initiated by an official of a State or a political subdivision of a State, who is authorized by State law to initiate such an evacuation and who reasonably determined that such an evacuation was necessary to protect the public health and safety.".

(c) LIMITATION.—Section 170 of the Atomic Energy Act of 1954 (42 U.S.C. 2210) is amended by adding at the end the following new subsection:

"q. LIMITATION ON AWARDING OF PRECAUTIONARY EVACUATION COSTS.—No court may award costs of a precautionary evacuation unless such costs constitute a public liability.".

SEC. 6. INITIAL LIMIT ON RETROSPECTIVE PAYMENTS AND LIMIT ON AGGREGATE LIABILITY FOR A SINGLE NUCLEAR INCIDENT.

Section 170 e. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"(1) With respect to liability for one or more nuclear incidents covered by an industry retrospective rating plan required by subsection b. which is not in excess of the maximum amount of financial protection required of the licensees covered by the industry retrospective rating plan—

"(A) the aggregate payments in any single year by or on behalf of persons indemnified shall not be required to exceed the amount of financial protection provided in that year pursuant to subsection b., and

"(B) the funds provided by financial protection pursuant to subsection b. in any year by or on behalf of such persons indemnified and, where appropriate, the funds provided as a result of the issuance of obligations pursuant to subsection b.(4), shall be the exclusive source of payments for public liability claims.

"(2) With respect to activities of contractors with whom the Secretary has entered into an agreement of indemnification under subsection d., other than those activities funded by the Nuclear Waste Fund, the aggregate liability for a single nuclear incident of persons indemnified, including the reasonable costs of investigating and settling claims and defending suits for damage, shall not exceed the sum of $500,000,000 together with the amount of financial protection required of the contractor: *Provided,* That in the event of a nuclear incident involving damages in excess of that amount of aggregate liability, Congress will thoroughly review the particular incident and will take whatever action is deemed necessary and appropriate to protect the public from the consequences of a disaster of such magnitude: *And provided further,* That with respect to any nuclear incident occurring outside of the United States to which an agreement of indemnification entered into under the provisions of subsection 170 d. is applicable, such aggregate liability shall not exceed the amount of $100,000,000 together with the amount of financial protection required of the contractor.".

SEC. 7. COMPENSATION PLANS.

(a) IN GENERAL.—Section 170 i. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(i)) is amended to read as follows:

"i. COMPENSATION PLANS.—(1) After any nuclear incident involving damages that are likely to require payments by the United States under this section, the Secretary or the Commission, as appropriate, shall—

"(A) make a survey of the causes and extent of damage; and

"(B) expeditiously submit a report setting forth the results of such survey to the Congress, to the Representatives of the affected districts, to the Senators of the affected States, and (except for information that will cause serious damage to the national defense of the United States) to the public, to the parties involved, and to the courts.

"(2) Not later than 90 days after any determination by a court, pursuant to subsection o., that the public liability from a single nuclear incident may exceed the maximum amount of financial protection required of licensees covered by an industry retrospective rating plan required by subsection b., or the limit on aggregate public liability under subsection e., as appropriate, the President shall submit to the Congress—

"(A) an estimate of the aggregate dollar value of personal injuries and property damage that arises from the nuclear incident;

"(B) recommendations for additional sources of funds to pay claims exceeding the amount of protection required of licensees covered by an industry retrospective rating plan required by subsection b., or the limit on aggregate public liability under subsection e., as appropriate, which recommendations shall consider a broad range of possible sources of funds (including possible revenue measures on the sector of the economy, or on any other class, to which such revenue measures might be applied);

"(C) 1 or more compensation plans, that either individually or collectively shall provide for full, equitable, and efficient compensation for all valid claims and contain a recommendation or recommendations as to the relief to be provided, including any recommendations that funds be allocated or set aside for the payment of claims that may arise as a result of latent injuries that may not be discovered until a later date; and

"(D) any additional legislative authorities necessary to implement such compensation plan or plans.

"(3) Nothing in this section or in any agreement of indemnification entered into pursuant to this section shall preclude a recommendation from the President, the approval by Congress, or the enactment of a compensation plan that assesses any person or persons, including any person or persons that already have made payments to satisfy claims for public liability, as a source of funds for payments of indemnification for public liability.

"(4) Any compensation plan transmitted to the Congress pursuant to paragraph (2) shall bear an identification number and shall be transmitted to both Houses of Congress on the same day and to each House while it is in session.

"(5) No such compensation plan may be considered approved for purposes of sections 170 c., 170 d., and 170 k. unless between the date of transmittal and the end of the first period of one hundred and twenty calendar days of continuous session of Congress after the date on which such action is transmitted to such House, each House of Congress passes a resolution described in paragraph 7 of this subsection.

"(6) For the purpose of paragraph 5 of this subsection—

"(A) continuity of session is broken only by an adjournment of Congress sine die; and

"(B) the days on which either House is not in session because of an adjournment of more than three days to a day certain are excluded in the computation of the one hundred and twenty calendar day period.

"(7) This paragraph is enacted by Congress—

"(i) As an exercise of the rulemaking power of the Senate and the House of Representatives, respectively, and as such it is deemed a part of the rules of each House, respectively, but applicable only with respect to the procedure to be followed in that House in the case of resolutions described by clause (B) and it supersedes other rules only to the extent that it is inconsistent therewith; and

"(ii) with full recognition of the constitutional right of either House to change the rules (so far as relating to the procedure of that House) at any time, in the same manner and to the same extent as in the case of any other rule of the House.

"(B) For purposes of this paragraph, the term 'resolution' means only a resolution of either House of Congress the matter after the resolving clause of which is as follows: "That the approves the compensation plan numbered submitted to the Congress on , 19 , amendment.", the first blank space therein being filled with the name of the resolving House, the last blank space being filled with "with" or "without", as appropriate, and the other blank spaces being appropriately filled; but does not include a resolutions which specifies more than one compensation plan, unless such plans collectively provide for full, equitable, and efficient compensation and funding.

"(C) A resolution once introduced with respect to a compensation plan shall immediately be referred to a committee (and all resolutions with respect to the same compensation plan shall be referred to the same committee) by the President of the Senate or the Speaker of the House of Representatives, as the case may be.

"(D)(i) If the committee to which a resolution with respect to a compensation plan has been referred has not reported it at the end of sixty calendar days after its referral, it shall be in order to move either to discharge the committee from further consideration of such resolution or to discharge the committee from further consideration with respect to such compensation plan which has been referred to the committee.

"(ii) A motion to discharge may be made only by an individual favoring the resolution, shall be highly privileged (except that it may not be made after the committee has reported a resolution with respect to the same compensation plan), and debate thereon shall be limited to no more than two hours, to be divided equally between those favoring and those opposing the resolution. An amendment to the motion shall not be in order, and it shall not be in order to move to reconsider the vote by which the motion was agreed to or disagreed to.

"(iii) If the motion to discharge is agreed to or disagreed to, the motion may not be renewed, nor may another motion to discharge the committee be made with respect to any other resolution with respect to the same compensation plan.

"(E)(i) When the committee has reported, or has been discharged from further consideration of, a resolution, it shall be at any time thereafter in order (even though a previous motion to the same effect has been disagreed to) to move to proceed to the consideration of the resolution. The motion shall be highly privileged and shall not be debatable. An amendment to the motion shall not be in order, and it shall not be in order to move to reconsider the vote by which the motion was agreed to or disagreed to.

"(ii) Debate on the resolution referred to in clause (i) of this subparagraph shall be limited to not more than thirty hours, which shall be divided equally between those favoring and those opposing such resolution. A motion further to limit debate shall not be debatable. A motion to recommit the resolution shall not be in order, and it shall not be in order to move to reconsider the vote by which such resolution was agreed to or disagreed to.

"(F)(i) Motions to postpone, made with respect to the discharge from committee, or the consideration of a resolution or motions to proceed to the considertation of other business, shall be decided without debate.

"(ii) Appeals from the decision of the Chair relating to the application of the rules of the Senate or the House of Representatives, as the case may be, to the procedures relating to a resolution shall be decided without debate.".

(b) CONFORMING AMENDMENT.—Section 170 o. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(o)) is amended—

(1) in the matter preceding paragraph (1), by striking "subsection 170e.:" and inserting "subsection e., or the maximum amount of financial protection required of the licensees covered by an industry retro-

spective rating plan required by subsection b., as appropriate:"; and

(2) in paragraphs (1) and (2), after "such limit of liability", by inserting "or the maximum amount of financial protection required of the licensees covered by an industry retrospective rating plan required by subsection b., as appropriate," and

(3) by striking paragraph (4).

SEC. 8. DATE OF EXEMPTION FROM FINANCIAL PROTECTION REQUIREMENT.

Section 170 k. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(k)) is amended by striking "August 1, 1987" each place it appears and inserting "August 1, 1997".

SEC. 9. PRESIDENTIAL COMMISSION ON CATASTROPHIC NUCLEAR ACCIDENTS.

Section 170 of the Atomic Energy Act of 1954 (42 U.S.C. 2210) is amended by striking subsection l. and inserting the following:

"l. PRESIDENTIAL COMMISSION ON CATASTROPHIC NUCLEAR ACCIDENTS.—(1) Not later than 90 days after the date of the enactment of the Price-Anderson Amendments Act of 1987, the President shall establish a commission (in this subsection referred to as the 'study commission') in accordance with the Federal Advisory Committee Act (5 U.S.C. App.) to study means of fully compensating victims of a catastrophic nuclear accident that exceeds the maximum amount of financial protection required of licensees covered by an industry retrospective rating plan required by subsection b., or the amount of aggregate public liability under subsection e., as appropriate.

"(2)(A) The study commission shall consist of not less than 7 and not more than 11 members, who—

"(i) shall be appointed by the President; and

"(ii) shall be representative of a broad range of views and interests.

"(B) The members of the study commission shall be appointed in a manner that ensures that not more than a mere majority of the members are of the same political party.

"(C) Each member of the study commission shall hold office until the termination of the study commission, but may be removed by the President for inefficiency, neglect of duty, or malfeasance in office.

"(D) Any vacancy in the study commission shall be filled in the manner in which the original appointment was made.

"(E) The President shall designate 1 of the members of the study commission as chairperson, to serve at the pleasure of the President.

"(3) The study commission shall conduct a comprehensive study of appropriate means of fully compensating victims of a catastrophic nuclear accident that exceeds the maximum amount of financial protection required of licensees covered by an industry retrospective rating plan required by subsection b., or the amount of aggregate public liability under subsection e., as appropriate, and shall submit to the Congress a final report setting forth—

"(A) recommendations for any changes in the laws and rules governing the liability or civil procedures that are necessary for the equitable, prompt, and efficient resolution and payment of all valid damage claims, including the advisability of adjudicating public liability claims through an administrative agency instead of the judicial system;

"(B) recommendations for any standards or procedures that are necessary to establish priorities for the hearing, resolution, and payment of claims when awards are likely to exceed the amount of funds available within a specific time period; and

"(C) recommendations for any special standards or procedures necessary to decide and pay claims for latent injuries caused by the nuclear incident.

"(4)(A) The chairperson of the study commission may appoint and fix the compensation of a staff of such persons as may be necessary to discharge the responsibilities of the study commission, subject to the applicable provisions of the

Federal Advisory Committee Act (5 U.S.C. App.) and title 5, United States Code.

"(B) To the extent permitted by law and requested by the chairperson of the study commission, the Administrator of General Services shall provide the study commission with necessary administrative services, facilities, and support on a reimbursable basis.

"(C) The Attorney General, the Secretary of Health and Human Services, and the Director of the Federal Emergency Management Agency shall, to the extent permitted by law and subject to the availability of funds, provide the study commission with such facilities, support, funds and services, including staff, as may be necessary for the effective performance of the functions of the study commission.

"(D) The study commission may request any Executive agency to furnish such information, advice, or assistance as it determines to be necessary to carry out its functions. Each such agency is directed, to the extent permitted by law, to furnish such information, advice, or assistance upon request by the chairperson of the study commission.

"(E) Each member of the study commission may receive compensation at the maximum rate now or hereafter prescribed by law for each day such member is engaged in the work of the study commission. Each member may also receive travel expenses, including per diem in lieu of subsistence under sections 5702 and 5703 of title 5, United States Code.

"(F) The functions of the President under the Federal Advisory Committee Act (5 U.S.C. App.) that are applicable to the study commission, except the function of reporting annually to the Congress, shall be performed by the Administrator of General Services.

"(5) The final report required in paragraph (3) shall be submitted to the Congress not later than the expiration of the 2-year period beginning on the date of the enactment of the Price-Anderson Amendments Act of 1987.

"(6) The study commission shall terminate upon the expiration of the 2-month period beginning on the date on which the final report required in paragraph (3) is submitted.".

SEC. 10. WAIVER OF DEFENSES.

(a) STATUTE OF LIMITATIONS.—Section 170 n. (1) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(n)(1)) is amended in clause (iii) of the first sentence by striking the following: ", but in no event more than twenty years after the date of the nuclear incident".

(b) APPLICABILITY.—Section 170 n. (1) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(n)(1)) is amended—

(1) by redesignating subparagraphs (a), (b), and (c) as subparagraphs (A), (B), and (C), respectively;

(2) by striking "or" at the end of subparagraphs (A) and (B); and

(3) by inserting after subparagraph (C) the following new subparagraphs:

"(D) arises out of, results from, or occurs in the course of, the construction, possession, or operation of any facility licensed under section 53, 63, or 81, for which the Commission has imposed as a condition of the license a requirement that the licensee have and maintain financial protection under subsection a.,

"(E) arises out of, results from, or occurs in the course of, transportation of source material, byproduct material, or special nuclear material to or from any facility licensed under section 53, 63, or 81, for which the Commission has imposed as a condition of the license a requirement that the licensee have and maintain financial protection under subsection a., or

"(F) arises out of, results from, or occurs in the course of, nuclear waste activities undertaken by the Secretary, including, but not limited to, activities undertaken by contract,".

SEC. 11. JUDICIAL REVIEW OF CLAIMS ARISING OUT OF A NUCLEAR INCIDENT.

(a) CONSOLIDATION OF CLAIMS.—Section 170 n. (2) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(n)(2)) is amended—

(1) in the first sentence—

(A) by striking "an extraordinary nuclear occurrence" each place it appears and inserting "a nuclear incident"; and

(B) by striking "the extraordinary nuclear occurrence" each place it appears and inserting "the nuclear incident";

(2) in the second sentence, by inserting after "court" the first place it appears the following: "(including any such action pending on the date of the enactment of the Price-Anderson Amendments Act of 1987)"; and

(3) by adding at the end the following new sentence: "In any action that is or becomes removable pursuant to this paragraph, a petition for removal shall be filed within the period provided in section 1446 of title 28, United States Code, or within the 30-day period beginning on the date of the enactment of the Price-Anderson Amendments Act of 1987, whichever occurs later.".

(b) DEFINITION OF PUBLIC LIABILITY ACTION.—Section 11 of the Atomic Energy Act of 1954 (42 U.S.C. 2014), as previously amended by this Act, is further amended by adding at the end the following new subsection:

"hh. The term 'public liability action', as used in section 170, means any suit asserting public liability. A public liability action shall be deemed to be an action arising under section 170, and the substantive rules for decision in such action shall be derived from the law of the State in which the nuclear incident involved occurs, unless such law is inconsistent with the provisions of such section.".

(c) SPECIAL CASELOAD MANAGEMENT PANEL.—Section 170 n. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(n)) is amended by adding at the end the following new paragraph:

"(3)(A) Following any nuclear incident, the chief judge of the United States district court having jurisdiction under paragraph (2) with respect to public liability actions (or the judicial council of the judicial circuit in which the nuclear incident occurs) may appoint a special caseload management panel (in this paragraph referred to as the 'management panel') to coordinate and assign (but not necessarily hear themselves) cases arising out of the nuclear incident, if—

"(i) the United States district court having jurisdiction under paragraph (2) determines that the aggregate amount of public liability is likely to exceed the amount of primary financial protection available under subsection b. (or an equivalent amount in the case of a contractor indemnified under subsection d.); or

"(ii) the chief judge of the United States district court (or the judicial council of the judicial circuit) determines that cases arising out of the nuclear incident will have an unusual impact on the work of the court.

"(B)(i) Each management panel shall consist only of members who are United States district judges or circuit judges.

"(ii) Members of a management panel may include any United States district judge or circuit judge of another district court or court of appeals, if the chief judge of such other district court or court of appeals consents to such assignment.

"(C) It shall be the function of each management panel—

"(i) to consolidate related or similar claims for hearing or trial;

"(ii) to establish priorities for the handling of different classes of cases;

"(iii) to assign cases to a particular judge or special master;

"(iv) to appoint special masters to hear particular types of cases, or particular elements or procedural steps of cases;

"(v) to promulgate special rules of court, not inconsistent with the Federal Rules of Civil Procedure, to expedite cases or allow more equitable consideration of claims;

"(vi) to implement such other measures, consistent with existing law and the Federal Rules of Civil Procedure, as will encourage the equitable, prompt, and efficient resolution of cases arising out of the nuclear incident; and

"(vii) to assemble and submit to the President such data, available to the court, as may be useful in estimating the aggregate damages from the nuclear incident.".

SEC. 12. REPORTS TO CONGRESS BY NUCLEAR REGULATORY COMMISSION AND DEPARTMENT OF ENERGY.

Section 170 p. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(p)) is amended—

(1) by inserting "(1)" after the subsection designation;

(2) by striking "shall submit to the Congress by August 1, 1983, a detailed report", and inserting the

following: "and the Secretary shall submit to the Congress by August 1, 1993, detailed reports"; and

(3) by adding at the end the following new paragraphs:

"(2) Not later than April 1 of each year, the Commission and the Secretary shall each submit an annual report to the Congress setting forth the activities under this section during the preceding calendar year.

"(3) Not later than February 1, 1988, the Secretary shall submit a report to the Congress identifying and explaining the criminal and civil liabilities of all Department of Energy contractors and other persons indemnified who intentionally cause or attempt to cause a nuclear accident at a Department of Energy facility. The Secretary shall include in such report such recommendations as the Secretary determines to be appropriate for punishing such misconduct, enacting new provisions of law, or clarifying law in effect on August 1, 1987.".

SEC. 13. LIABILITY OF LESSORS.

Section 170 of the Atomic Energy Act of 1954 (42 U.S.C. 2210), as previously amended by this Act, is further amended by adding at the end the following new subsection:

"r. LIMITATION ON LIABILITY OF LESSORS.—No person under a bona fide lease of any utilization or production facility (or part thereof or undivided interest therein) shall be liable by reason of an interest as lessor of such production or utilization facility, for any legal liability arising out of or resulting from a nuclear incident resulting from such facility, unless such facility is in the actual possession and control of such person at the time of the nuclear incident giving rise to such legal liability.".

SEC. 14. PUNITIVE DAMAGES.

Section 170 of the Atomic Energy Act of 1954 (42 U.S.C. 2210), as previously amended by this Act, is further amended by adding at the end the following new subsection:

"s. LIMITATION ON PUNITIVE DAMAGES.—No court may award punitive damages in any action with respect to a nuclear incident or precautionary evacuation against a person on behalf of whom the United States is obligated to make payments under an agreement of indemnification covering such incident or evacuation.".

SEC. 15. INFLATION ADJUSTMENT.

Section 170 of the Atomic Energy Act of 1954 (42 U.S.C. 2210), as previously amended by this Act, is further amended by adding at the end the following new subsection:

"t. INFLATION ADJUSTMENT.—(1) The Commission shall adjust the amount of the aggregate standard deferred premium under subsection b. (1) not less than once during each 5-year period following the date of the enactment of the Price-Anderson Amendments Act of 1987, in accordance with the aggregate percentage change in the Consumer Price Index since—

"(A) such date of enactment, in the case of the first adjustment under this subsection; or

"(B) the previous adjustment under this subsection.

"(2) For purposes of this subsection, the term 'Consumer Price Index' means the Consumer Price Index for all urban consumers published by the Secretary of Labor.".

SEC. 16. TECHNICAL AND CONFORMING AMENDMENTS.

(a) REFERENCES TO NUCLEAR REGULATORY COMMISSION.—

(1) Section 11 q. of the Atomic Energy Act of 1954 (42 U.S.C. 2014(q)) is amended by striking "Commission" each place it appears and inserting "Nuclear Regulatory Commission".

(2) Section 170 a. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(a)) is amended by striking "Commission" in the first sentence and inserting the following: "Nuclear Regulatory Commission (in this section referred to as the 'Commission')".

(b) REFERENCES TO SECRETARY OF ENERGY.—

(1) Subsections j. and m. of section 11 of the Atomic Energy Act of 1954 (42 U.S.C. 2014) are amended by striking "Commission" each place it ap-

pears and inserting the following: "Nuclear Regulatory Commission or the Secretary of Energy, as appropriate,".

(2) Section 11 t. (2) of the Atomic Energy Act of 1954 (42 U.S.C. 2014(t)(2)) is amended by striking "Commission" and inserting "Secretary of Energy".

(3) Section 170 f. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(f)) is amended by inserting after "Commission" the first 2 places it appears the following: "or the Secretary, as appropriate,".

(4) Subsections g., h., j., and m. of section 170 of the Atomic Energy Act of 1954 (42 U.S.C. 2210) are amended by inserting after "Commission" each place it appears the following: "or the Secretary, as appropriate,".

(5) Section 170 n. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(n)) is amended—

(A) in paragraph (1)—

(i) by striking "Commission" in subparagraph (C) and inserting "Department of Energy"; and

(ii) by inserting after "Commission" the second place it appears the following: "or the Secretary, as appropriate,"; and

(B) in paragraph (2), by inserting after "Commission" the following: "or the Secretary, as appropriate".

(6) Section 170 o. (3) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(o)(3)) is amended—

(A) by inserting after "Commission" the first place it appears the following: "or the Secretary, as appropriate,"; and

(B) by inserting after "Commission" the second place it appears the following: "or the Secretary, as appropriate".

(c) REFERENCES TO REVISED STATUTES.—

(1) Section 170 g. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(g)) is amended by inserting "(41 U.S.C. 5)" after "Statutes".

(2) Section 170 j. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(j)) is amended by striking "section 3679 of the Revised Statutes, as amended" and inserting the following: "sections 1341, 1342, 1349, 1350, and 1351, and subchapter II of chapter 15, of title 31, United States Code".

(d) INTERNAL CROSS-REFERENCES.—

(1) Section 11 q. of the Atomic Energy Act of 1954 (42 U.S.C. 2014(q)) is amended by striking "subsection" each place it appears and inserting "section".

(2) Section 11 t. of the Atomic Energy Act of 1954 (42 U.S.C. 2014(t)) is amended by striking "subsection" each place it appears and inserting "section".

(3) Section 11 w. of the Atomic Energy Act of 1954 (42 U.S.C. 2014(w)) is amended by striking "subsections 170 a., c., and k." and inserting "subsections a., c., and k. of section 170".

(4) Section 170 a. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(a)) is amended—

(A) in the first sentence, by striking "subsection 2 i. of the Atomic Energy Act of 1954, as amended" and inserting "section 2 i.";

(B) in the first sentence, by striking "subsection 170 b." and inserting "subsection b."; and

(C) in the second sentence, by striking "subsection 170 c." and inserting "subsection c.".

(5) Section 170 k. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(k)) is amended in the first sentence by striking "subsection 170 a." and inserting "subsection a.".

(6) Section 170 n. (1) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(n)(1)) is amended in the last sentence by striking "subsection 170 e." and inserting "subsection e.".

(7) Section 170 o. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(o)) is amended in paragraph (2), by striking "subparagraph (3) of this subsection (o)" and inserting "paragraph (3)".

(e) SUBSECTION CAPTIONS.—

(1) Section 170 a. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(a)) is amended by inserting after the subsection designation the following: "REQUIREMENT OF FINANCIAL PROTECTION FOR LICENSEES.—".

(2) Section 170 b. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(b)) is amended by inserting after the subsection designation the following: "AMOUNT AND TYPE OF FINANCIAL PROTECTION FOR LICENSEES.—".

(3) Section 170 c. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(c)) is amended by inserting after the subsection designation the following: "INDEMNIFICATION OF LICENSEES BY NUCLEAR REGULATORY COMMISSION.—".

(4) Section 170 f. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(f)) is amended by inserting after the subsection designation the following: "COLLECTION OF FEES BY NUCLEAR REGULATORY COMMISSION.—".

(5) Section 170 g. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(g)) is amended by inserting after the subsection designation the following: "USE OF SERVICES OF PRIVATE INSURERS.—".

(6) Section 170 h. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(h)) is amended by inserting after the subsection designation the following: "CONDITIONS OF AGREEMENTS OF INDEMNIFICATION.—".

(7) Section 170 j. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(j)) is amended by inserting after the subsection designation the following: "CONTRACTS IN ADVANCE OF APPROPRIATIONS.—".

(8) Section 170 k. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(k)) is amended by inserting after the subsection designation the following: "EXEMPTION FROM FINANCIAL PROTECTION REQUIREMENT FOR NONPROFIT EDUCATIONAL INSTITUTIONS.—".

(9) Section 170 m. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(m)) is amended by inserting after the subsection designation the following: "COORDINATED PROCEDURES FOR PROMPT SETTLEMENT OF CLAIMS AND EMERGENCY ASSISTANCE.—".

(10) Section 170 n. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(n)) is amended by inserting after

the subsection designation the following: "WAIVER OF DEFENSES AND JUDICIAL PROCEDURES.—".

(11) Section 170 o. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(o)) is amended by inserting after the subsection designation the following: "PLAN FOR DISTRIBUTION OF FUNDS.—".

(12) Section 170 p. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(p)) is amended by inserting after the subsection designation the following: "REPORTS TO CONGRESS.—".

SEC. 17. EFFECTIVE DATE.

(a) IN GENERAL.—Except as provided in subsection (b), the amendments made by this Act shall become effective on August 1, 1987, and shall be applicable with respect to nuclear incidents occurring on or after such date.

(b) EXCEPTIONS.—

(1) The amendments made by section 9 and subsections (a) and (b) of section 11 shall become effective on the date of the enactment of this Act.

(2) The amendments made by subsections (a) and (b) of section 11 shall be applicable with respect to nuclear incidents occurring on any date.

SEC. 18. INDEMNIFICATION FOR NON-PROFIT EDUCATIONAL ACTIVITIES.

Section 170 k. of the Atomic Energy Act of 1954, as amended, is amended—

(i) in paragraph (1) by striking the sentence beginning with "The aggregate indemnity" and ending with "defending suits for damage" and inserting in lieu thereof the following: "Any payments required pursuant to such an agreement of indemnification for public liability in excess of the maximum amount of financial protection required of the licensees covered by an industry retrospective rating plan required by subsection 170 b. shall be made in accordance with the provisions of subsection 170 i."; and

(ii) in paragraph (2) after "licensed activity" by inserting the following: ", including costs of investigating and settling claims and defending suits for damage".

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